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DRAFT

Environmental Impact Report for the Old Oakland Mixed-Use Project

Prepared for:
City of Oakland

December, 1987

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ENVIRONMENTAL IMPACT REPORT

FOR THE

OLD OAKLAND MIXED-USE PROJECT

Prepared for:

City of Oakland

December, 1987

Prepared by:

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File No. ER85-41
Ref. No. SCH #85090315

City of Oakland
Oakland, California

DRAFT ENVIRONMENTAL IMPACT REPORT FOR:
OLD OAKLAND MIXED-USE PROJECT
(Project Name)
California Environmental Quality Act (CEQA)

RELEASE OF REPORT FOR PUBLIC REVIEW

The City of Oakland is hereby releasing this draft Environmental Impact Report (EIR), finding it to be accurate and complete and ready for public review. Members of the public are invited to respond to the EIR. Comments should focus on the sufficiency of the EIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Please address all comments to the Oakland City Planning Commission, 6th Floor, City Hall, One City Hall Plaza, Oakland, California, 94612. Comments should be received no later than February 26, 1988.

[X] The City Planning Commission will conduct a public hearing on the draft EIR on February 10 at 1:30 P.M. in Room 115, City Hall.

[ ] After all comments are received, a final EIR will be prepared and considered for acceptance by the City Planning Commission on _____ at _____ in Room 115, City Hall.

[X] The draft EIR is attached.

[ ] The draft EIR is available at the City Planning Department.

If you have any questions, please telephone the City Planning Department at 273-3911. Ask for Thomas H. Doctor, Senior Planner.

Alvin D. James

ALVIN D. JAMES
Director of City Planning

DATE: December 28, 1987

File No. ER85-41
Ref. No. SCH #85090315

City of Oakland
Oakland, California

DRAFT ENVIRONMENTAL IMPACT REPORT FOR:
OLD OAKLAND MIXED-USE PROJECT
(Project Name)
California Environmental Quality Act (CEQA)

SUMMARY

A. GENERAL INFORMATION

Project Title Old Oakland Mixed Use Project

Location Block Bounded by 8th, 9th, Clay and Washington Streets

Project Sponsor Office of Economic Development and Employment

Address 1417 Clay Street, 2nd Floor

B. PROJECT DESCRIPTION:

Construction and operation of up to 70 apartments, up to 15,000 square feet of retail commercial uses, and a parking structure with up to 500 parking spaces (see Section 2, Project Description).

C. SUMMARY OF ENVIRONMENTAL CONSEQUENCES OF THE PROJECT:

Displacement of existing, on site businesses and residents; creation of new access points along local streets; demolition of the Fremont Hotel; a contributing structure to the Old Oakland Historic District; temporary, localized increases in construction related air and noise pollution; generation of high levels of carbon monoxide within the parking structure; exposure of residential units to higher than desirable noise levels; increased demand for public services; soil and geotechnical constraints (see Section 1, Summary).

D. POSSIBLE MITIGATION MEASURES TO MINIMIZE ANY ADVERSE EFFECTS OF THE PROJECT:

Relocate businesses and residents in accordance with State law; provide recommended street improvements; document the existence of the Fremont Hotel; implement standard dust and noise control measures during construction; provide appropriate ventilation for the parking structure; provide additional noise insulation; provide security, fire protection, and water conservation features; coordinate plans with the school district; conduct a detailed geotechnical site study and design the project to withstand the effect of an earthquake; provide an adequate project drainage system; provide energy saving features (see Section 1, Summary).

E. AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONSULTED:

See Section 11.

F. PUBLIC AGENCIES HAVING JURISDICTION BY LAW OVER THE PROJECT:

City of Oakland

G. PRELIMINARY DRAFT EIR PREPARED BY: Earth Metrics Incorporated
859 Cowan Road
DATE COMPLETED: December 28, 1987 Burlingame, CA 94010

Report Supervisor: John Torrey

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PREFACE

The City of Oakland Planning Department has determined that an Environmental Impact Report is required for the proposed Old Oakland Mixed-Use Project. The Initial Study and related information is presented in Appendix A. Under the California Environmental Quality Act, the purpose of an Environmental Impact Report (EIR) is to provide objective information to public decision makers and the general public regarding potential environmental effects resulting from project implementation. The City of Oakland can then institute methods of reducing adverse impacts or consider alternatives to the project.

This EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970, and subsequent amendments presently in effect. Included in the recent CEQA amendments is the policy that the purpose of an EIR is to identify only the significant effects of a project on the environment. The amendments define significant effect to be a "substantial adverse impact on the environment". This Environmental Impact Report, therefore, discusses in detail primarily those impacts determined to have a significant adverse effect, based on the Initial Study prepared by the City. Focusing the EIR with an Initial Study conforms to Section 15143 of the CEQA Guidelines.

Certain issues, such as those related to Biology and Risk of Upset (accidental release of hazardous materials or accidental explosion) were not analyzed in this EIR because the potential for significant environmental impacts was not found in the City's Initial Study or during subsequent environmental analyses (refer to Section 8, Effects Found Not to Be Significant).

In accordance with Section 15143 of the State CEQA Guidelines, which states that "significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence," the EIR analyzes different areas of impact for each issue examined, depending on the magnitude of the effort. Examination of impacts is limited to the local vicinity of the project, when appropriate, to adequately describe effects. If needed, impacts are discussed in a broader area.

The State Resources Agency, in Section 15126(c) of its amended CEQA Guidelines, states that "the discussion of mitigation measures shall distinguish between the measures that are proposed by project proponents to be included in the project, and other measures that are not included but could reasonably be expected to reduce adverse impacts." Thus, the mitigation measures recommended herein are not presently included in the project description, unless otherwise specifically noted. Also, where appropriate, the EIR incorporates by reference documents that are readily available to the general public, in accordance with Section 15150 of the CEQA Guidelines.

1. SUMMARY

This section summarizes the potential impacts, recommended mitigation measures, alternatives evaluated, and issues to be resolved for the proposed Old Oakland Mixed Use project. The project site is located on the westerly two thirds of the block bounded by Washington, 8th, Clay, and 9th Streets in the City of Oakland. The project would involve property acquisition, relocation of existing businesses and residents, demolition of existing structures, and construction and operation of up to 70 apartments, up to 15,000 square feet of retail commercial uses, and a parking structure with up to 500 parking spaces. For more information regarding the project description, see Section 2 of this report.

1.1 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

The investigation conducted for this report included an examination of the environmental impacts. The major project impacts are summarized in Table 1-1. The significance of each impact is noted along with the recommended mitigation measures. The significance of each impact with and without mitigation is also noted. The following impact categories are used in Table 1-1: (B) beneficial impact; (NS) no significant impact; (PS) potentially or possibly significant impact (an impact which cannot be precisely assessed at this time) and (S) significant adverse impact. For more information regarding these impacts and mitigation measures, see Section 3 of this report.

1.2 ALTERNATIVES EVALUATED

Three alternatives to the proposed project are evaluated in Section 4 of this report: No Project, Alternate Site, and Parking Structure Only.

NO PROJECT. This alternative assumes that development as proposed would not occur on the project site at the present time. The site would retain its existing character of parking and commercial/residential uses. This alternative would avoid the proposed project's dislocation and demolition impacts, public service demand increases, and the temporary air quality and noise impacts associated with demolition and construction. This alternative also would not produce the beneficial impacts of the proposed project.

ALTERNATE SITE. This alternative assumes that development as proposed would occur at a location other than the proposed site. No specific, feasible, alternate sites have been identified, so the evaluation of this alternative applies generally to the entire southwest area of the Oakland Central District.

Development of the project on an alternate site would avoid the site specific dislocation and demolition impacts of the proposed project. However, an alternative site is likely to have its own occupants who would have to be displaced, since few of the blocks in the area are undeveloped. Some of the blocks only contain parking lots, which could be built upon. Construction of the project on such sites would produce a short term loss of a major parking resource during construction and a smaller net addition of new parking spaces for the area, as compared to the proposed project. The public service and construction related air quality and noise impacts would occur regardless of the location of the project site. The benefits of the project at an alternate site would be comparable to the project at the proposed site, although the alternate site may not be as suitable as the proposed site for providing convenient parking for other area developments.

PARKING STRUCTURE ONLY. This alternative assumes that only a parking structure is constructed on the project site. The purpose of this alternative would be to provide parking in the project area, but avoid demolition of the Fremont Hotel building. This alternative would still involve dislocation of the other site occupants. The public service impacts of the project would be minimized. Construction related air quality and noise impacts would occur regardless.

This alternative would provide the same parking benefits as the proposed project. The housing benefits would not be realized and a net loss in housing and commercial space could result if replacement structures are not built elsewhere. The ability of this alternative to equal the development design benefits of the proposed project would depend on whether a parking structure alone could be designed to be compatible with adjacent structures without the proposed residential and commercial elements.

1.3 IDENTIFIED AREAS OF CONCERN

Through the Initial Study and Notice of Preparation process, the City of Oakland Planning Department has identified land use and planning, population, housing and employment, traffic and parking, public services, noise, air quality, energy, urban design, historic resources, hydrology, and geology as areas of controversy. See Appendix A, Initial Study and Appendix B, Letters in Response to the Notice of Preparation. These issues present potentially significant environmental impacts and are addressed in this EIR. Public concern in response to the information provided in this Draft EIR will be addressed in the Final EIR.

TABLE 1-1. SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

3.1 LAND USE AND PLANNING

IMPACT. The project would replace the Fremont Hotel and several other structures with a mixed use, residential/commercial/parking project. (NS)

MITIGATION MEASURE. No mitigation is required.

3.2 POPULATION, HOUSING, AND EMPLOYMENT

IMPACT. The project would displace and require relocation for existing occupants of the hotel and commercial establishments on site. (S)

MITIGATION MEASURE

- Relocate project site residents and businesses in accordance with the requirements of the California Community Redevelopment Law (proposed by applicant). (NS)

IMPACT. The project would increase the supply and quality of housing on site. (B)

MITIGATION MEASURES. No mitigation is required.

3.3 TRAFFIC AND PARKING

IMPACT. The project would not significantly affect intersection levels of service in the project area. (NS)

MITIGATION MEASURES

- Installation of a traffic signal at the intersection of 8th and Clay Streets would improve traffic conditions at that intersection to Level of Service A from Level of Service D, if desired. (NS)

IMPACT. The project would create new access points along local streets. (PS)

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

MITIGATION MEASURES

- If parking structure access is to be off of Clay Street, then stripe a left turn lane on Clay Street for access into the parking structure to eliminate interference with through traffic. One lane northbound would be used for this purpose, but this is not expected to cause any significant effects on northbound traffic flow. Alternatively, consider providing access to the parking structure to/from 8th and/or 9th Streets.

- Consider the use of parking meters throughout the parking structure as an alternative to including an access control gate at the entrance. (NS)

IMPACT. The project would increase the supply of parking spaces in the project area, which would help to meet the existing and projected parking demand from other area developments. (B)

MITIGATION MEASURE

- Designate the first level of the parking structure for short term parking to help alleviate the existing, on street parking deficiency. (B)

3.4 VISUAL QUALITY, URBAN DESIGN, AND HISTORICAL RESOURCES

IMPACT. The project would require demolition of the Fremont Hotel, a contributing structure to the Old Oakland Historic District. (PS)

MITIGATION MEASURES. If the Oakland City Council determines that the loss of the Fremont Hotel would constitute a significant adverse impact, then the following mitigation measures are recommended.

- Document the existence of the Fremont Hotel with photographs and statements from individuals knowledgeable of the structure's history prior to demolition. (NS)

- Consider avoiding demolition of the Fremont Hotel. The effects of this mitigation measure are discussed in Section 4, Evaluation of Alternatives. (NS)

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

IMPACT. The project design would be more compatible with nearby landmark buildings and the rehabilitated structures in the Victorian Row Project than the existing site uses and structures. (B)

MITIGATION MEASURE. No mitigation is required.

3.5 AIR QUALITY

IMPACT. Demolition and construction activities would result in temporary localized increases in the level of total suspended particulates. (PS)

MITIGATION MEASURE

- Implement standard dust control measures, such as wetting disturbed soils and demolition remains and cleaning construction vehicles of dirt and dust before they travel off site. (NS)

IMPACT. Operation of the proposed parking structure may produce high levels of carbon monoxide at the project site. (PS)

MITIGATION MEASURES

- The parking structure design should include sufficient wall area open to natural ventilation to allow for at least six air changes per hour. If possible, all garage levels should be above ground. Mechanical ventilation, although expensive to install and operate, is also a viable solution to help reduce CO levels and improve air quality.

- If the facade design does not meet the ventilation assumptions used in the Impact discussion, then parking management programs also can be developed to reduce vehicle travel inside the parking structure, especially during peak hour periods. For example, long term parking spaces could be restricted to the upper levels and short term parking could be confined to the ground floor level to reduce the distance that the more numerous short term parkers must travel within the parking structure.

- To reduce the quantity of CO emitted while cars idle and drive in the cold start condition, avoid the use of toll booths or implement measures to keep vehicle idling time and congestion to a minimum. For example, there could be more than one exit toll booth in operation during peak travel periods or parking meters could be used to avoid the need for toll booths. In addition, access ramps should be located and designed to minimize conflicts with adjacent street traffic.

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

- To protect residential and commercial occupants of the project from high CO levels, the parking structure design should maintain separation of parking structure air from residential and commercial air supplies. Solid walls should separate the parking structure from the residential and commercial areas. Mechanical ventilation for the residential and commercial areas should be oriented away from the parking structure. (NS)

3.6 NOISE

IMPACT. Demolition and construction activities at the site would cause temporary increases in local noise levels. (PS)

MITIGATION MEASURES

- To minimize the noise impact of construction, all construction and demolition vehicles and equipment should be properly muffled. Holes for pile driving should be predrilled.

- Construction activities at the project site should be restricted to minimize disturbance.

- A solid eight foot high fence should be installed around the site during construction.

- The public should be informed of proposed construction timelines to minimize potential annoyance related to construction noise. This is important for any residences located within a few hundred feet of construction activity. (NS)

IMPACT. The project site is located within an area of Oakland which is recognized as being noisier than is desirable, especially for residential uses. (PS)

MITIGATION MEASURES

- New developments at or in the vicinity of Location 2 (corner of 8th and Jefferson Streets) and Location 3 (corner of 8th and Washington Streets) will require the incorporation of noise mitigation measures beyond common building construction. These measures could include use of appropriate double pane glass or heavier than standard, single pane glass, sealing of all frames and seams, effective weather seals for windows and doors, and insulation in walls and roof/ceiling spaces.

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

- Preparation of an acoustical study to meet State of California Title 24 standards will be required for the final design of the residential portion of the project.

- Rooftop equipment at the project should be enclosed to control potential noise impacts created by the equipment. (NS)

3.7 PUBLIC SERVICES

IMPACT. The project would increase the demand for police, fire protection, water, sewer, education, and utility services. (PS)

MITIGATION MEASURES

Police

- The final project's design should include accepted crime prevention measures and standards applicable for the proposed uses.

- The parking structure should include a security patrol/access control system capable of mitigating the likelihood of parking structure related crimes.

- Final project plans should be reviewed by the Oakland Police Department for security design review.

Fire Protection

- The parking structure should be well ventilated to reduce the risk of smoke from a vehicle fire accumulating within the structure.

- Fire walls/separations between residential uses and the parking structure should be included in the project's final design.

- Further development/redevelopment in the area should avoid blocking off streets or otherwise limiting traffic access to the area by Fire Department vehicles.

- The proposed project should be equipped with automatic fire alarms, automatic sprinklers, and smoke detectors.

- Fire hydrants should be located and designed pursuant to code requirements.

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

- Fire flow calculations should be performed after final design to verify adequate water delivery of the proposed structure.

Water and Sewer Service

- Water conservation fixtures should be installed in toilets, showerheads, washing machines and sink faucets to minimize domestic water demand and wastewater generating.

Education

- A plan should be developed in coordination with the Oakland Unified School District to accommodate the additional students the project is expected to generate.

Utilities

- Implement the mitigation measures recommended in Section 3.10, Energy, to reduce energy consumption. (NS)

3.8 GEOLOGY

IMPACT. Soil and geological conditions associated with the site present potential project design constraints.

MITIGATION MEASURES

- A detailed geotechnical site study, including geologic and soil engineering analysis, should be conducted to better evaluate development risk and to design measures to mitigate that risk.

- Building design should comply with seismic requirements of the current Uniform Building Code and Seismic Safety Element of the Oakland Comprehensive Plan.

- Design foundation supports for project structures to withstand the effects of ground shaking and differential settlement.

- Design utilities to provide sufficient flexibility to withstand the ground motion induced during an earthquake.

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

- Additional specific engineering recommendations as proposed by the geotechnical engineers should be incorporated into the final designs of the proposed development. (NS)

3.9 HYDROLOGY

IMPACT. The project would have an insignificant impact on drainage, runoff, erosion, flooding and water quality. (NS)

MITIGATION MEASURES

- The on site storm drainage system should be designed in accordance with City standards to accommodate quantities of runoff expected to be generated from buildout of the project.

- Landscaped areas of the project site should be designed to absorb runoff from roofs and walkways.

- Necessary surface and subsurface drainage systems to adequately handle storm runoff should be provided within the project site.

- To avoid the potential for soil erosion during construction and decrease the likelihood of trench stability problems, earthwork operations should be performed during the dry weather season, where possible.

- A regular pavement cleaning program should be implemented to clean on site parking areas of litter, gasoline and oil spills to reduce urban runoff contaminants.

- The development should be landscaped, to the extent possible, with vegetation requiring minimum maintenance or application of fertilizers and pesticides. (NS)

3.10 ENERGY

IMPACT. The project would not consume an unusual amount of energy for construction or operation. (NS)

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

(CONTINUED)

TABLE 1-1 (CONTINUED). SUMMARY OF POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

MITIGATION MEASURES

Construction

- Minimize idling time and unnecessary transport of construction equipment. In addition, maintain and tune all equipment.

- Utilize local sources on infrastructure materials when feasible, in order to minimize transportation energy.

Lighting, Heating, Air Conditioning and Ventilation

- Install time clocks or photocells adjusted to control outdoor lighting.

- Use sodium vapor or other low energy outdoor lighting together with photoelectric cells.

- Locate water heaters as closely as possible to the demand locations.

- Require an efficient heating, ventilation and air conditioning system consistent with applicable state and local codes.

Motor Vehicle Travel

- Residents and patrons of the proposed project should be informed of the availability of public transit to decrease motor vehicle use to and from the site. (NS)

(B) Beneficial Impact
(S) Significant Adverse Impact
(NS) Not a Significant Impact
(PS) Potentially Significant Impact

2. PROJECT DESCRIPTION

2.1 PROJECT SITE LOCATION AND CHARACTERISTICS

The proposed project site is located in the City of Oakland in Alameda County, California. The site consists of 40,000 square feet or approximately 0.92 acres, and is located on the westerly two-thirds of the block bounded by Washington, 8th, Clay, and 9th Streets. The topography of the site is generally flat. Figure 2-1 presents the regional setting and Figure 2-2 shows the local setting.

Four structures currently occupy approximately one-half of the site, with the remainder being used for parking by adjacent or nearby occupants. Approximately 61 parking spaces now exist on site. The four structures include two adjacent buildings owned by the Salvation Army, the J & M Meats/9th Street Market building, and the Fremont Hotel.

The site has access to City streets on the north, west, and south property lines. The eastern property line is adjacent to two commercial properties, Ratto's International Grocers and the Johnson/Durante property, both of which share the block with the project site and front on Washington Street (see Figure 2-3). To the north is the vacant Swan's Market building, to the west is the Housewives Market, and to the south is a series of older commercial and hotel-type residential structures. In the same vicinity, and of importance to the project, are the Convention Center/Hyatt Regency Hotel, the Trans-Pacific Centre in the Chinatown Redevelopment Area, Victorian Row in the Old Oakland area, City Center, and the Oakland-Piedmont-Emeryville Municipal Courthouse. Located south and west of the site are a mixture of aging single and multiple family structures, service commercial and light industrial uses, Interstate 980, and Interstate 880 (the Nimitz Freeway) (see Figure 2-4).

2.2 PROJECT DESCRIPTION AND OBJECTIVES

The Old Oakland Mixed Use Project is an activity administered by the Redevelopment Agency of the City of Oakland through the Office of Economic Development and Employment (OEDE). The primary objectives of the project are to provide a much-needed parking facility in the vicinity of the Victorian Row Project, to provide a downtown residential resource, and to continue the pedestrian-oriented commercial activities now being developed in the Victorian Row Project and the Housewives Market development effort. It is also an objective to create a facility which complements the architectural character of Victorian Row and the scale of other existing buildings in the area.

The project was conceived out of a need to provide a substantial number of parking spaces for the Victorian Row Project and the surrounding area. According to a 1982 parking study for the southwestern Central Business District prepared by City staff, there was a need for approximately 1,200 new parking spaces in this district and that a minimum of 300 of these spaces was needed in the vicinity of the Victorian Row Project.

The original project designs for a parking structure to occupy the predominately vacant portions of the site did not provide an optimum solution. Onwers of two major properties on the project site were contacted and expressed an interest in having the Redevelopment Agency/City acquire these properties, allowing for a more comprehensive approach to development of the

site. It then became possible to integrate commercial and residential activities with a more efficient and less obtrusive parking facility.

The project would involve property acquisition, relocation of existing businesses and residents, demolition of existing structures, and construction and operation of up to 70 apartments, up to 15,000 square feet of retail commercial uses, and a parking structure with up to 500 parking spaces. The retail commercial uses would be located at street level along the perimeter streets with one and two bedroom apartments above. The up to six level parking structure would be located between the apartment/commercial buildings with possible access from the adjacent streets. A pedestrian and service access corridor to serve the rear of Ratto's may also be provided, as shown in Figure 2-5. The project construction would not proceed until all relocation is successfully completed in accordance with the California Community Redevelopment Law.

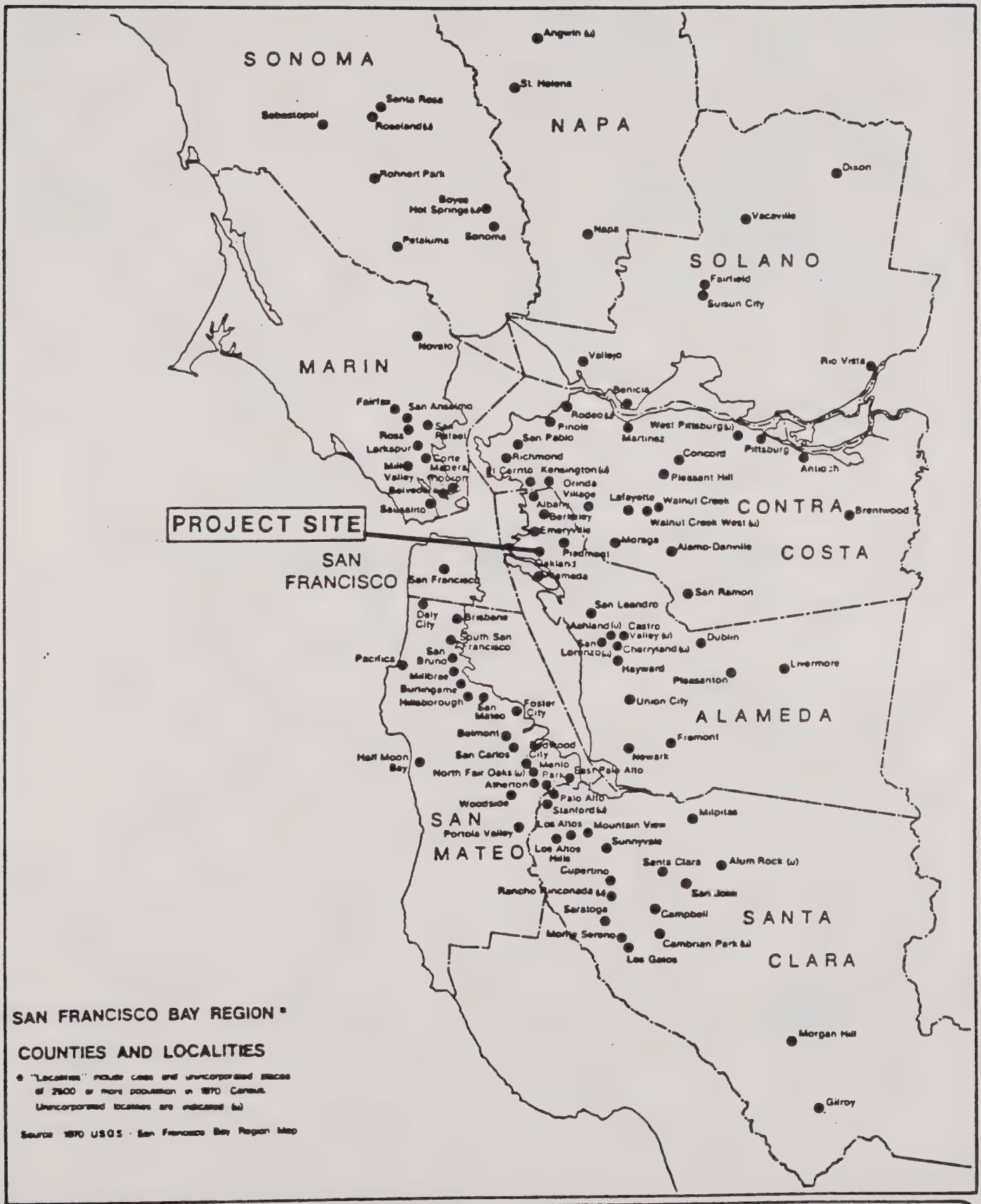
The project's residential, commercial, and parking structure uses are integrated in such a manner as to obviate negative aspects usually associated with a parking structure-only development, particularly in a neighborhood containing generally smaller scale buildings of historical and architectural significance. The commercial and residential development "wrapping around" a multi-story parking facility creates an opportunity to develop facades of a texture and scale which relate to the the adjacent architecture of the Victorian Row Project. Providing commercial activities at street level is complimentary to and links the commercial development being provided in Victorian Row and the nearby Housewives Market (see Figure 2-5).

The project concept includes a proposal that approximately one-half of the residential units be affordable to households with incomes below 80 percent of the area's median income level. Development of these units will probably require a construction subsidy. The units are proposed as predominately one bedroom with a lesser number of units of no more than two bedrooms, as the project site does not lend itself to housing for large families.

The project will be controlled by the C-52 Old Oakland Commercial Zone Regulations and the S-7 Preservation Combining Zone Regulations. In addition, the Redevelopment Agency will exercise design review authority within the project in conjunction with the City Planning Department. No use permitted by the zoning regulations and no construction, remodeling, or improvement will be permitted without the prior approval of the Redevelopment Agency. The Redevelopment Agency will evaluate development proposals with respect to social and economic perspective, as well as aesthetics and urban design characteristics.

2.3 INTENDED USES OF THE EIR

This EIR will be used for environmental review of the proposed Old Oakland Mixed Use Project. The City of Oakland will be using this EIR in its decision making process.

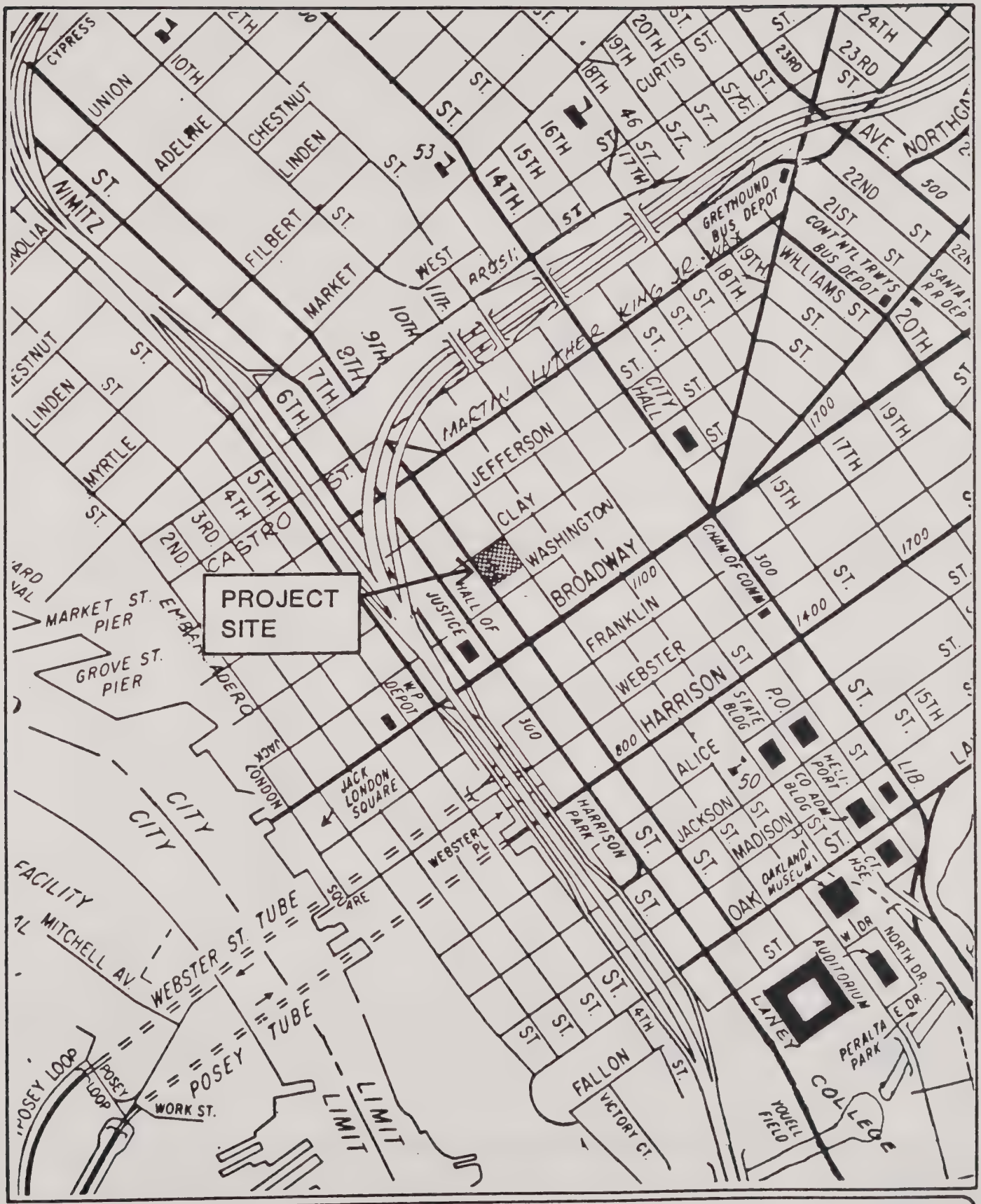


earth metrics

N

SCALE
1" = 15 MI.

FIGURE 2-1. REGIONAL SETTING OF THE PROJECT SITE



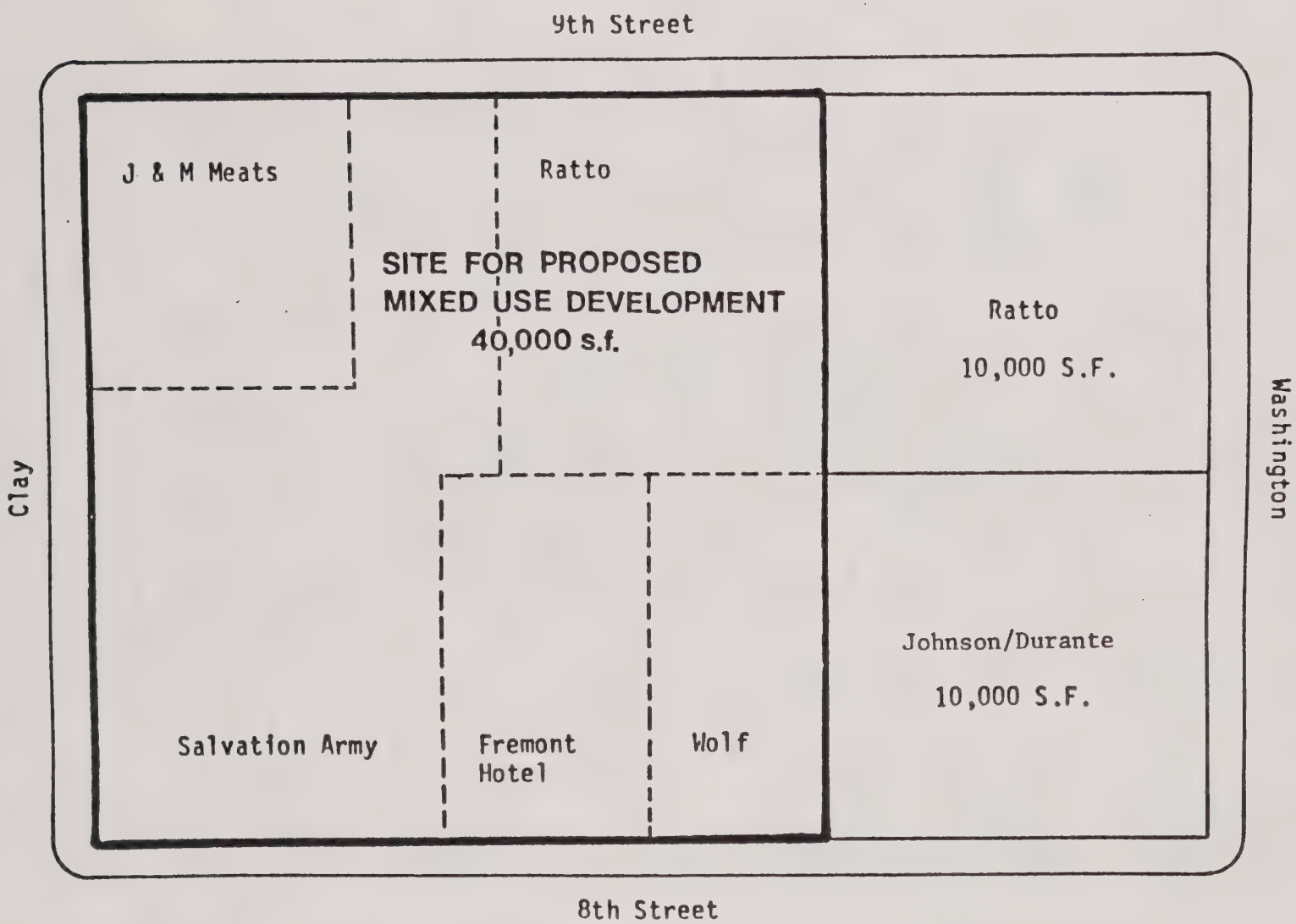
earth metrics

N

SCALE

1" = 1060'

FIGURE 2-2. LOCAL SETTING OF THE PROPOSED PROJECT



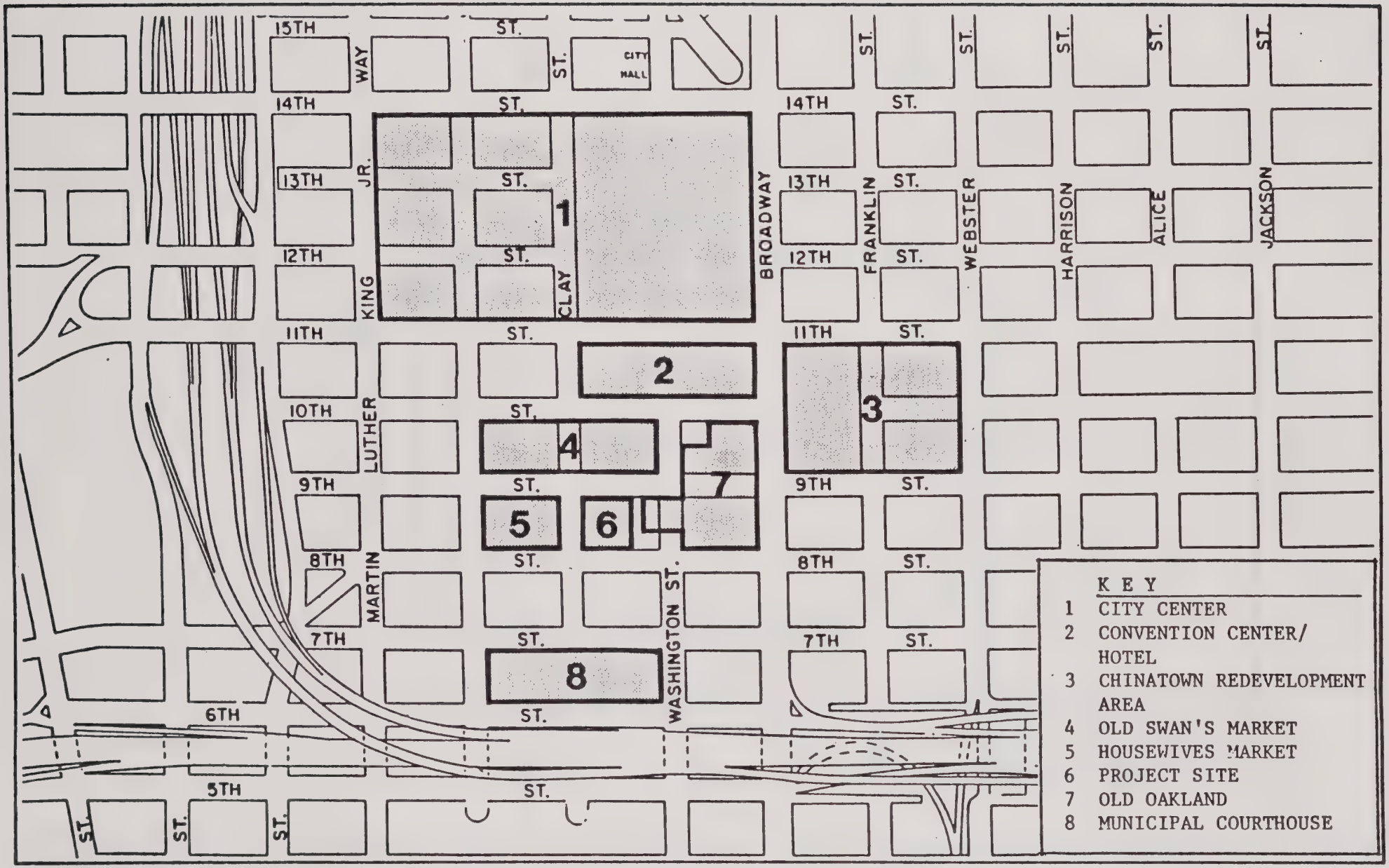
SOURCE: CITY OF OAKLAND, 1987

earth metrics

N

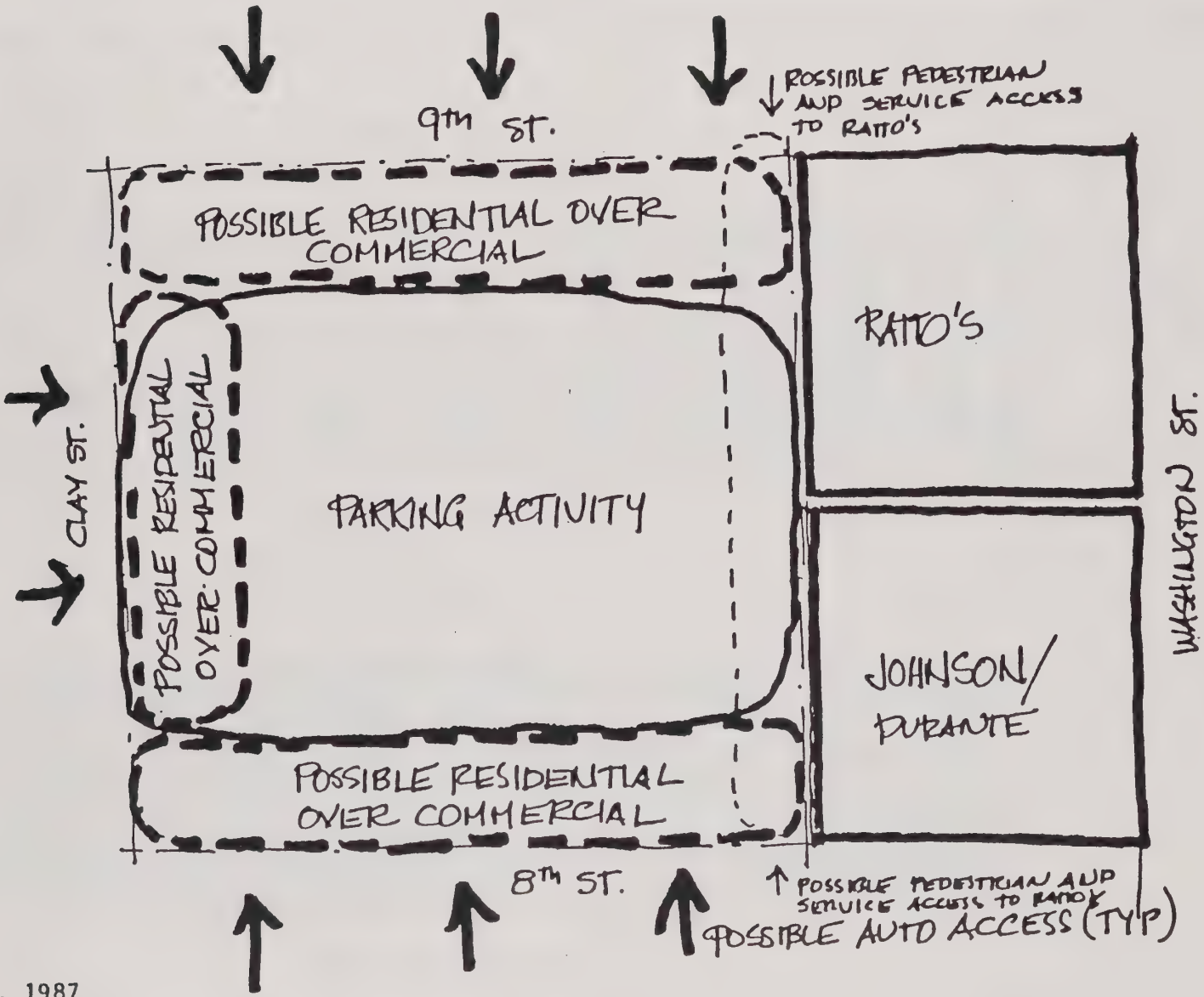
SCALE
1" = 46'

FIGURE 2-3. PROPOSED PROJECT PLOT PLAN



earth metrics

FIGURE 2-4 MAJOR BUILDINGS AND DISTRICTS NEAR THE PROJECT AREA



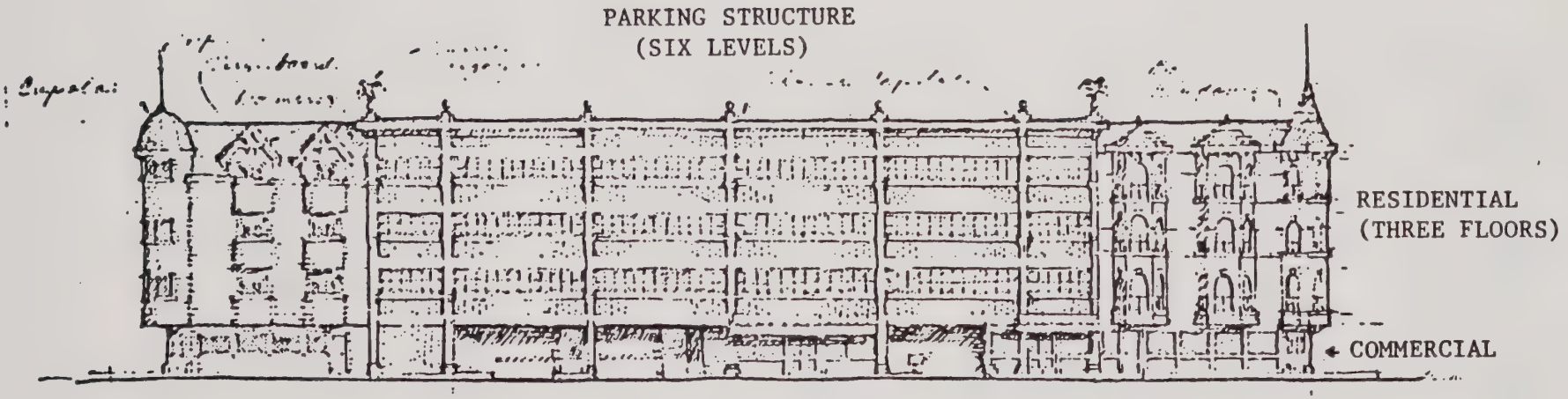
SOURCE: CITY OF OAKLAND, 1987

earth metrics

N

SCALE
NO SCALE

FIGURE 2-5. PROPOSED PROJECT CONCEPTUAL PLANS



CLAY STREET ELEVATION

8TH STREET ELEVATION

SOURCE: CITY OF OAKLAND, 1987

earth metrics

SCALE
1" = 46'

FIGURE 2-5 (CONTINUED). PROPOSED PROJECT CONCEPTUAL PLANS

3. EXISTING SETTING, POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS, AND MITIGATION MEASURES RECOMMENDED TO MMINIMIZE THE SIGNIFICANT IMPACTS

3.1 LAND USE AND PLANNING

EXISTING SETTING

Land Uses. The 0.92 acre project site contains four structures which occupy approximately one half of the site. The remainder of the site is being used for parking by adjacent or nearby businesses. Approximately 61 parking spaces exist on the site. The four structures on site consist of the one and one half story J and M Meat Company/9th Street Marketing Inc. building, a red brick structure on the corner of Clay and 9th Streets; the two story, concrete block Salvation Army building extending along Clay and 8th Streets; the two story brick Salvation Army building on 8th Street; and the Fremont Hotel at 524-530 8th Street. On 9th Street there is a large parcel of vacant land accessible from 8th and Clay which is used for parking. There is another vacant parcel on 8th Street, between the Fremont Hotel and the Johnson/Durante property line. The site has access to City streets on the north, west and south property lines with the eastern property line adjacent to the Ratto's and Johnson/Durante properties (see Figure 2-3 in Section 2, Project Description).

A portion of the project site (the Fremont Hotel) is located in the Old Oakland Historic District. Nearby, 11 recently renovated 19th Century Victorian structures located between 8th and 10th, and Washington and Broadway, will be used for office and commercial uses. The complex, when complete, will also house a hotel, three restaurants and a nightclub. Other surrounding land uses include the Housewives Market, Swan's Market, various hotels, and commercial uses which provide housing on the second and third floors of the structures. More recent development surrounding the project site includes the Hyatt Regency hotel, the Oakland Convention Center, the Trans Pacific Centre, and the Oakland-Piedmont-Emeryville Municipal Courthouse.

Redevelopment is taking place to the east of the Old Oakland Historic District in Chinatown; to the north and south between 9th, 10th and 11th; and to the east and west between Broadway and Webster. These improvements, assessed at $250 million, include a four square block retail, residential and cultural center, including 250 condominium units, two office buildings (600,000 square feet), two parking garages, a 24,000 square foot Chinese Cultural Center and 150,000 square feet of retail space. Construction is to begin in late 1987. Other housing projects are expected to be developed on 14th Street, between Jefferson Street and Martin Luther King Way, and on the block bounded by 10th, 11th, Clay, and Jefferson Streets. In general, surrounding land uses are two to three story commercial and residential uses. However, more recently, taller structures (11 to 24 stories) have been introduced into the project vicinity (see Section 3.4, Visual Quality, Urban Design, and Historic Resources).

Oakland Comprehensive Plan and Zoning. The Comprehensive Plan land use designation for the project site is Commercial. The surrounding designations also are Commercial. The project site is zoned C-52 (Old Oakland Commercial), the only commercial district in downtown Oakland which limits building height,

with an S-7 Preservation Combining Zone overlay. The primary reason for the addition of the S-7 Zone is the presence of the Fremont Hotel, a "contributing" building to the Old Oakland Historic District (see Section 3.4 for more historical information regarding the Fremont Hotel). A height limit of 50 feet has been designated to provide a transition to taller areas of the City and to allow sunlight to reach sidewalks on at least one side between 11:00 A.M. and 1:00 P.M., from March 21 to September 21. In addition, this height limitation provides a greater protection for historic buildings and districts and promotes infill development of an appropriate scale.

The C-52 Zone was established: "to preserve and enhance an area of historically or architecturally valuable structures of moderate scale for office, retail, and other appropriate uses along streets oriented to pedestrian movement..."

Permitted uses in this zone include permanent and semitransient residential at a maximum density of one unit per 300 square feet; civic activities, such as community services, limited child care, health care, and nursery and elementary schools; and some commercial activities, such as general food sales, convenience sales and service, general retail sales, consultive and financial services, and administrative. Conditionally permitted uses include civic activities, such as police and fire stations, post offices, public parking lots, colleges, and railroad and bus terminals; some commercial activities, such as fast food restaurants, alcoholic beverage sales, consumer laundry and repair services, general wholesale sales, hotels, motels, and automotive fee parking; and custom manufacturing activities. Special regulations apply to the demolition of a facility containing rooming units.

The land uses currently on site are in general conformance with the permitted and conditional uses allowed in the C-52 Zone. Since the project area is not contiguous to a residential area, setbacks are not required for development on the project site. Nearby properties are zoned C-52 (to the north, south, and east), C-51 (Central Business Service), and C-40 (Community Thoroughfare).

The S-7 Zone was established: "to preserve and enhance the cultural, educational, esthetic, environmental, and economic value of structures, other physical facilities, sites, and areas of special importance due to historical association, basic architectural merit, the embodiment of a style or special type of construction, or other special character, interest, or value..." The regulations for this zone include design review procedures for the construction, alteration, demolition, or removal of structures.

Under the S-7 Zone, a structure may be demolished if: (a) the structure is not considered irreplaceable in terms of its visual, cultural, or educational value to the area or community; and (b) the proposed demolition will not substantially impair the visual, architectural, or historic value of the total setting or character of the surrounding area or of neighboring facilities. If Criteria (a) and (b) cannot be met, a structure still may be demolished under Section (1) or (2) of Criteria (c): (1) the structure or portion thereof is in such condition that is not architecturally feasible to preserve or restore it; or (2) considering the economic feasibility of preserving or restoring the structure or portion thereof, and balancing the interest of the public in such preservation or restoration and the interest of the owner of the property in the utilization thereof, approval is required by considerations of equity.

GENERAL PLAN LAND USE ELEMENT. The Land Use Element of the Oakland Comprehensive Plan is the primary land use policy statement applicable to the proposed project. The zoning ordinance and related municipal requirements and procedures support the Land Use Element policies. The following summarizes the relevant Land Use Element policies regarding development of residential and commercial projects.

- Most of the vacant lots within residential areaas in the flatlands should be used for "infill" housing of appropriate type and density.

- The City encourages private housing development in Oakland; it will provide assistance to developers regarding the types and location of units to be built and will attempt to expedite the development of desirable projects where necessary.

- The City will take all feasible steps to remove from the housing supply dilapidated units impossible to rehabilitate. However, it will first make certain that adequate and affordable substitute housing is available for those persons who must be relocated.

- Every effort should be made to preserve those older buildings, other physical features, sites, and areas which have significant historical, architectural, or other special interest or value.

- Residential areas should be protected from activities which produce excessive noise, dirt, or odors or generate heavy traffic.

- A residential building's height, bulk, and appearance should be harmonious with nearby buildinngs, the natural setting, and the area's desired character. Actual likeness to nearby buildings is usually called for where the desired area character depends strongly on homogeneity of building style or scale.

- Off street parking for residential buildings should be adequate in amount and conveniently located and laid out, but in general its visual prominence should be minimized.

- The City will generally exclude new commercial and industrial uses from residential areas, but will allow selected uses in planned unit developments or high density areas where it finds that the uses will be compatible.

- Commercial and industrial buildings, signs, and other facilities should be designed to harmonize with or, where appropriate, enhance their surroundings.

- Important shopping frontages will be protected from disruption by unsuitably located parking lots or other open land uses, and where appropriate from interruptions caused by ground flood nonretail uses.

- Commercial and industrial areas should have adequate parking and loading facilities.

CENTRAL DISTRICT URBAN RENEWAL PLAN. In establishing the Victorian Row/Old Oakland Project, one of the City's objectives include preserving "the facades of historically and architecturally valuable structures (that is, to retain as much as possible of the original architectural flavor and style) while adapting the interiors to modern usage, and to ensure the rehabilitation (that is, to correct building deficiencies in keeping with adopted rehabilitation standards) or appropriate new development of other properties in the area," and creating "an appropriate mix of office, retail and related commercial activities, catering to pedestrian interest at the ground floor level."

The Redevelopment Agency's design review criteria for development in the project area includes the following:

- The location, size, design and operating characteristics of the proposed development shall be compatible with, and will not adversely affect, the preservation of the area as a historical and architectural resource.

- The scale of the proposed development and the amount of service facilities such as off street parking and loading necessary to its proper operation shall not bring any adverse impact on the preservation of the area as an historical and architectural resource.

- The area should be designed to encourage pedestrian use, and to provide a continuity of pedestrian movement within the area and the surrounding commercial and institutional areas.

- Access of automobiles to commercial establishments and parking accommodations should respect major pedestrian corridors.

DRAFT CENTRAL DISTRICT DEVELOPMENT PLAN. The draft version of the Central District Development Plan is currently under review by the City Council. The project site and five city blocks located between 7th and 10th Streets and Broadway and Clay Streets have been designated as "City Center South" in the draft Plan. In addition, this area has also been identified as a conservation area. Accordingly, a primary development concept for this area is to encourage compatible infill construction in the Old Oakland District (same boundaries as City Center South) which respects the historic character of the neighborhood. Urban design principles promote the preservation of historically and architecturally significant landmarks and districts.

Policies on urban development identify the need to "include a variety of specialized, complementary commercial, civic, and recreation areas, as well as close in apartment districts" within the Central Business District. Every effort should be made to preserve those older buildings, other physical features, sites, and areas which have significant historical, architectural, or other special interest or value.

Other relevant draft policies include the removal of dilapidated housing units which cannot be rehabilitated; the provision of adequate and affordable substitute housing for persons who must be relocated; and the provision of adequate off street parking with minimal visual prominence for residential buildings.

HOUSING ELEMENT. The City's Housing Element includes policies to cooperate with private housing producers to reduce the overall costs of housing units, and to urge developers to include the maximum number of publicly assisted housing units that are economically and socially feasible within all future developments (see Section 3.2, Population, Housing and Employment for more details).

OTHER ELEMENTS. Relevant policies of other Comprehensive Plan Elements are discussed in other sections of this EIR where appropriate.

IMPACTS

Land Uses and Compatibility. The proposed project would replace the Fremont Hotel, the Salvation Army buildings and a commercial meat market (J&M Meats/9th Street Market) with a mixed use, four story residential/commercial project which will "wrap around" a five to six level parking garage. This development would displace and require relocation for existing tenants of the hotel and commercial establishments.

Once completed, approximately one half of the project would provide affordable housing to households with incomes of 80 percent of the area's median income level. The units are proposed as predominantly one bedroom with a lesser number of units of no more than two bedrooms.

The proposed project will provide parking needed to serve commercial, office and residential land uses in the Old Oakland District. The project also will provide a mix of retail and related commercial activities which will cater to pedestrian interest at the ground floor level.

The project will be designed to be architecturally compatible with other, nearby historical structures. The uses will be consistent and compatible with the existing residential, commercial and parking uses in the project area.

Oakland Comprehensive Plan and Zoning. The proposed project is consistent with the C-52 Old Oakland Commercial Zone Regulations and the S-7 Preservation Combining Zone Regulations as set forth in the Oakland Zoning Regulations. The proposed residential and commercial uses are permitted activities in the C-52 Zone, while automotive fee parking is a conditionally permitted use. The proposed residential density of one unit per 571 square feet of site area does not exceed the maximum density allowed in this zone. A discussion of the effect on the project of the special regulations applying to the demolition of a facility containing rooming units (the Fremont Hotel) is included in Section 3.2, Population, Housing, and Employment. The proposed demolition of all structures on the site would seem acceptable under the design review procedures in the S-7 Zone regulations. The loss of the structures, including the Fremont Hotel, would meet Criteria (a) and (b), as well as Section (2) of Criteria (c) regarding the demolition of structures. With respect to the Fremont Hotel specifically, its demolition would be allowable under the S-7 Zone criteria since the structure would not be considered irreplaceable in terms of its visual, cultural, or educational value to the area or community; the proposed demolition would not substantially impair the visual, architectural, or historic value of the total setting or character of the surrounding area or of neighboring facilities; and the interest of the City in utilizing the property for the proposed redevelopment project may outweigh the economic feasibility of preserving or restoring the structure and the interest of the public in such preservation or restoration.

MITIGATION MEASURES. No mitigation is required.

3.2 POPULATION, HOUSING AND EMPLOYMENT

EXISTING SETTING

Population. There are less than 100 individuals currently residing at the project site. Most of these are occupants of the Fremont Hotel, and the remainder live as temporary residents in the Salvation Army building. Most of the residents of the hotel are low income adults. The population residing in the Salvation Army building consists of families with little or no income. The majority of the population is either unemployed or hold low income jobs.

The population of the surrounding area has been declining for many years. "1970-1980 Oakland Census Summary Report" census tract 4031 contains the project site and was used to reference the general surrounding area, and 1980 data were used to calculate the percentages. The 1980 Census lists the population of census tract 4031 as 583 persons. Between 1970 and 1980 the population of the census tract dropped by over 60 percent. If this trend has continued, then fewer than 400 people live in the neighboring area. Residents of the area are predominantly low income individuals who are temporary residents (City of Oakland, June, 1983).

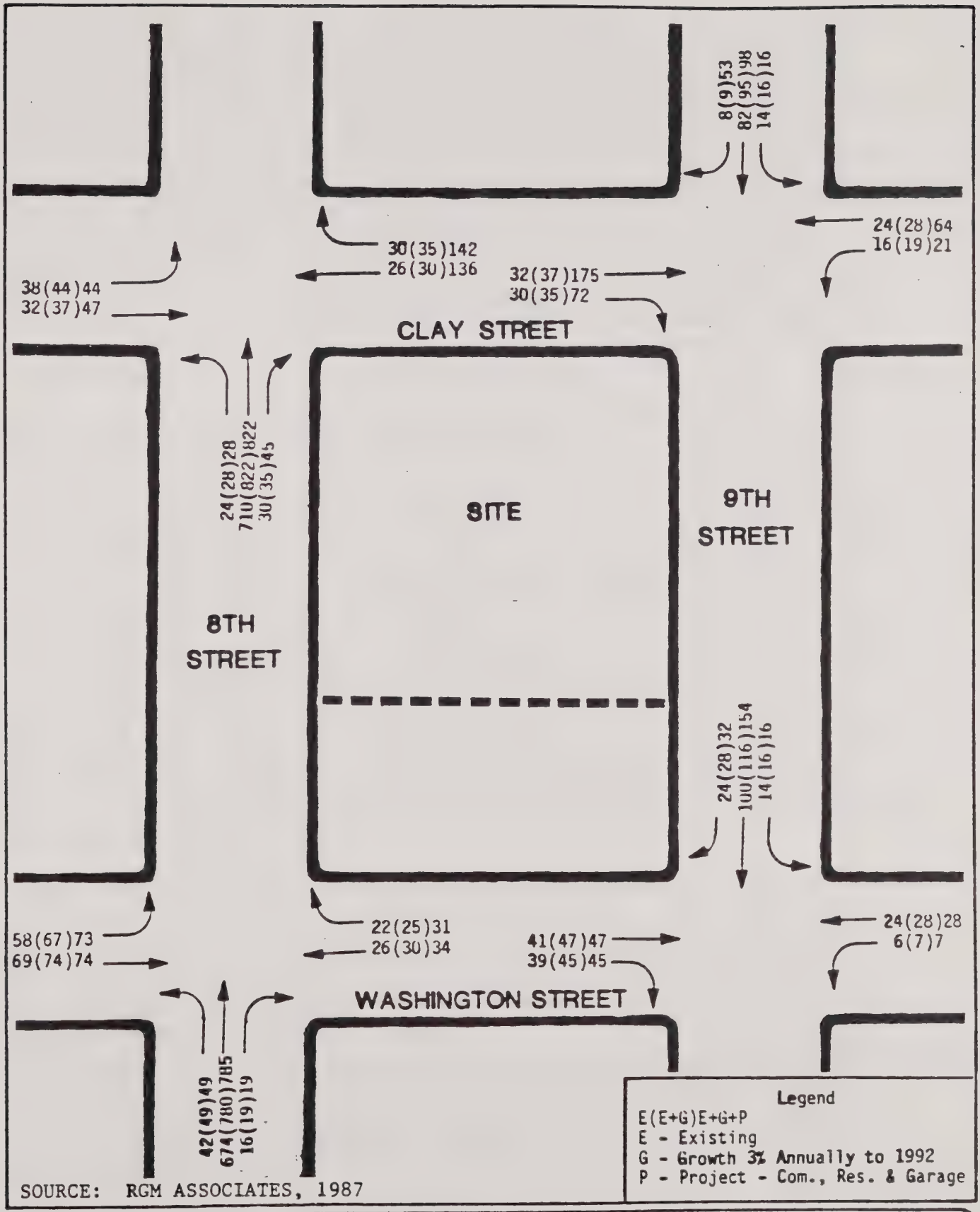
In previous years, the population of the area has had an ethnic mix of 50 percent black and 25 percent white, with the remainder of various minority groups. However, these data do not appear to reflect recent changes in the demographic characteristics of the area, the most significant of which would appear to be an increase in the number of recent Asian immigrants.

Housing. There are only two structures on the project site which provide housing. The first is the Fremont Hotel, which is approximately 10,000 square feet in size. The hotel, which occupies the upper two floors of a three story brick structure, consists of about 33 low income, one bedroom and studio units.

The other is the Salvation Army operates a family shelter which contains temporary housing for approximately 40 people. Accommodations are limited to adults with children, and each family is allowed a maximum stay of 21 days. Families are given separate rooms, and food is provided by a cafeteria.

The 1980 census counted 418 housing units in the entire area (census tract 4031), a decrease of almost 63 percent from 1970. In 1980, 306 units were occupied, and 98 percent of these were low income rental units (City of Oakland, June, 1983). With these trends continuing, there now appear to be even fewer available housing units in the area.

Employment. Employment at the project site is provided by family businesses and small proprietorships. Apparently less than 50 individuals are employed in five business establishments and one private social service agency. The businesses include two family owned sewing shops and one restaurant, a hotel and a small meat distributor. The majority of those employed are female sewing workers, while other employment at the site includes meat packers and cutters, a cook, waiters, bus persons, and a few social service employees. With a few exceptions, the businesses in the adjacent area are of a similar nature. These consist of small proprietorships and family owned businesses which are primarily engaged in wholesale and retail trade. The largest establishment, the Housewives Market, consists of separately owned stalls which operate as small, retail food businesses.



earth metrics

SCALE
NO SCALE

FIGURE 3.3-3. NET TRIP DISTRIBUTION OF THE PROPOSED PROJECT

Traffic Operations. All of the analyzed intersections will operate at Level of Service D or better with projected traffic growth plus the project generated traffic, as shown in Table 3.3-6. All signalized intersections are expected to remain at Level of Service A or B. The STOP control on 8th Street at Clay will experience Level of Service A for major movements, Level of Service D for three of the minor turning movements, and all other minor movements will be at Level of Service A or B. A Level of Service D associated with longer delays at peak periods is considered acceptable from a traffic engineering standpoint. The Levels of Service for the signalized intersections were calculated using the CAPSSI-85 program based on the 1985 Highway Capacity Manual. The levels of service for the unsignalized intersections were calculated using the Highway Capacity Manual Four-Legged Intersection STOP analysis. Based on this analysis, none of the intersections studied would be operating at a level which would preclude redevelopment of the project site.

Access. Access to the site is related principally to access to the parking structure, which may be provided to/from 8th, 9th, and/or Clay Streets (see Figure 2-4 in Section 2). In this traffic analysis, access to/from Clay Street only was assumed. There are two lanes northbound on Clay Street and one lane southbound. Northbound traffic would turn right into the garage with minimal effects on through traffic. Southbound traffic would turn left from a single lane blocking through traffic whenever opposing traffic is encountered. The potential for rear-end collisions and inherent obstruction to through traffic under the conceptual access design may be undesirable. This situation could be avoided by providing a left turn pocket into the parking structure. If a midblock left turn pocket on Clay Street were considered inappropriate, then the project should be designed to allow parking structure access to/from 8th and/or 9th Streets and to allow right turn in/right turn out movements only. Under this condition, the safety impacts of access to/from 8th and/or 9th Streets would be equivalent or better than access from Clay Street with the midblock left turn pocket. The use of parking meters throughout the parking structure as an alternative to including an access control gate at the entrance would reduce the likelihood of traffic congestion at the entrance gate and on the access street.

Parking. The project would add up to 500 parking spaces to the project area. It is expected that at least 70 of these spaces would be reserved for use by the residential tenants. The remainder of the spaces could be short term or long term spaces serving the commercial uses of the project and helping to meet the existing and projected parking demand from other area developments. Locating the short term parking at the first level would help alleviate the existing, on street parking deficiency.

Transit. The project would increase demand for public transit facilities. For example, if five percent of the estimated daily vehicle trip ends from the proposed residential and commercial uses were to be converted to transit trips, the project would generate 35 passenger trip ends on AC Transit and BART facilities.

Construction. Traffic on 8th, 9th, Clay and Washington Streets would be exposed to demolition and construction traffic which would occasionally interfere with and add to the normal traffic flow. Parking on these streets would be reduced during construction. However, transportation is expected to operate satisfactorily during the demolition and construction period.

TABLE 3.3-6. PROJECTED P.M. PEAK HOUR LEVELS OF SERVICE FOR PROJECT AREA INTERSECTIONS

INTERSECTION	REQUIRED CYCLE TIME	LOS	45 SECOND CYCLE
1992 EXISTING AND GROWTH (WITHOUT PROJECT)			
9th and Clay	32	B	B
9th and Washington	36	B	B
8th and Washington	47	A	B
8th and Clay	N/A	(a)	N/A
1992 EXISTING AND GROWTH AND PROJECT			
9th and Clay	31	B	B
9th and Washington	37	B	B
8th and Washington	47	A	B
8th and Clay	N/A	(b)	N/A

(a) Unsignalized intersection; Major approach, LOS A; Minor approaches, LOS A, LOS B, LOS C.

(b) Unsignalized intersection; major approach, LOS A; Minor approaches, LOS A, LOS B, LOS D.

MITIGATION MEASURES

- Installation of a traffic signal at the intersection of 8th and Clay Streets would improve traffic conditions at that intersection to Level of Service A from Level of Service D, if desired.

- If parking structure access is to be off of Clay Street, then stripe a left turn lane on Clay Street for access into the parking structure to eliminate interference with through traffic. One lane northbound would be used for this purpose, but this is not expected to cause any significant effects on northbound traffic flow. Alternatively, consider providing access to the parking structure to/from 8th and/or 9th Streets.

- Consider the use of parking meters throughout the parking structure as an alternative to including an access control gate at the entrance.

- Designate the first level of the parking structure for short term parking.

3.4 VISUAL QUALITY, URBAN DESIGN AND HISTORICAL RESOURCES

EXISTING SETTING

Visual Character of the Project Area. The project site is located in an urban setting in downtown Oakland. A portion of the project site lies within the Old Oakland Historic District and contains the Fremont Hotel, which is listed as a contributing building in the Oakland Cultural Heritage Survey. Sharing the block with the project site are the Johnson/Durante property and the Ratto property. Both of these properties are in the Old Oakland Historic District.

The project site and surrounding neighborhood supports specialized food related commercial uses such as Ratto's Italian delicatessen, J and M Meats/9th Street Market, the Housewives Market, a fish market and a potential marketplace at Swan's Market. For further detail of land uses and planning policies, see Section 3.1, Land Use and Planning.

The project area is designated as a Conservation District by both the Draft Central District Development Program and the Oakland Policy Plan. Several 19th Century Victorian structures exist in this portion also known as Old Oakland. As discussed in Section 3.1, 11 of these Victorians along 9th Street have recently been restored or are in the process of being restored for office and commercial use and are presently available for lease. Buildings in Old Oakland do not have setbacks, are generally two or three stories in height, and often have elaborate architectural detailing. Some of these contain operating commercial properties, but many are vacant. These two to three story structures provide a gradual transition to higher rise areas located to the north and east. Building materials on the site and throughout Old Oakland are generally either brick or wood. The Salvation Army buildings at 8th and Clay Streets are constructed with concrete blocks and brick. Some buildings in the project area appear to suffer from deferred maintenance.

Existing View Corridors and Opportunities. Figure 3.4-1 presents photographs showing views of the project site and surrounding land uses. Figure 3.4-2 identifies the locations from which the photographs were taken. The existing view corridors and opportunities available in the project vicinity include views from vehicles, buildings and ground level vantage points. Clay Street and Washington Street are two primary view corridors to visually significant structures. Views from Washington Street to the north terminate at the Oakland Convention Center at 10th Street. Background views consist of the Hyatt Regency Hotel, the Clorox building and the 15 story Oakland City Hall building. Views to the south along Clay Street and Washington Street focus on the Oakland-Piedmont-Emeryville Municipal Courthouse located at 7th Street, between Clay Street and Broadway.

From the site, the distant hills of Oakland and Berkeley are visible at the end of Clay Street, the Marin headlands can be seen looking west down 8th and 9th Streets, and east from 9th Street is a view of Laney College.

Views from buildings located in the project area face Old Oakland along 8th and 9th Streets and Washington and Clay Streets. Waterfront views are available of the Oakland estuary and Port to the west. Other buildings face north toward downtown and east toward Chinatown.

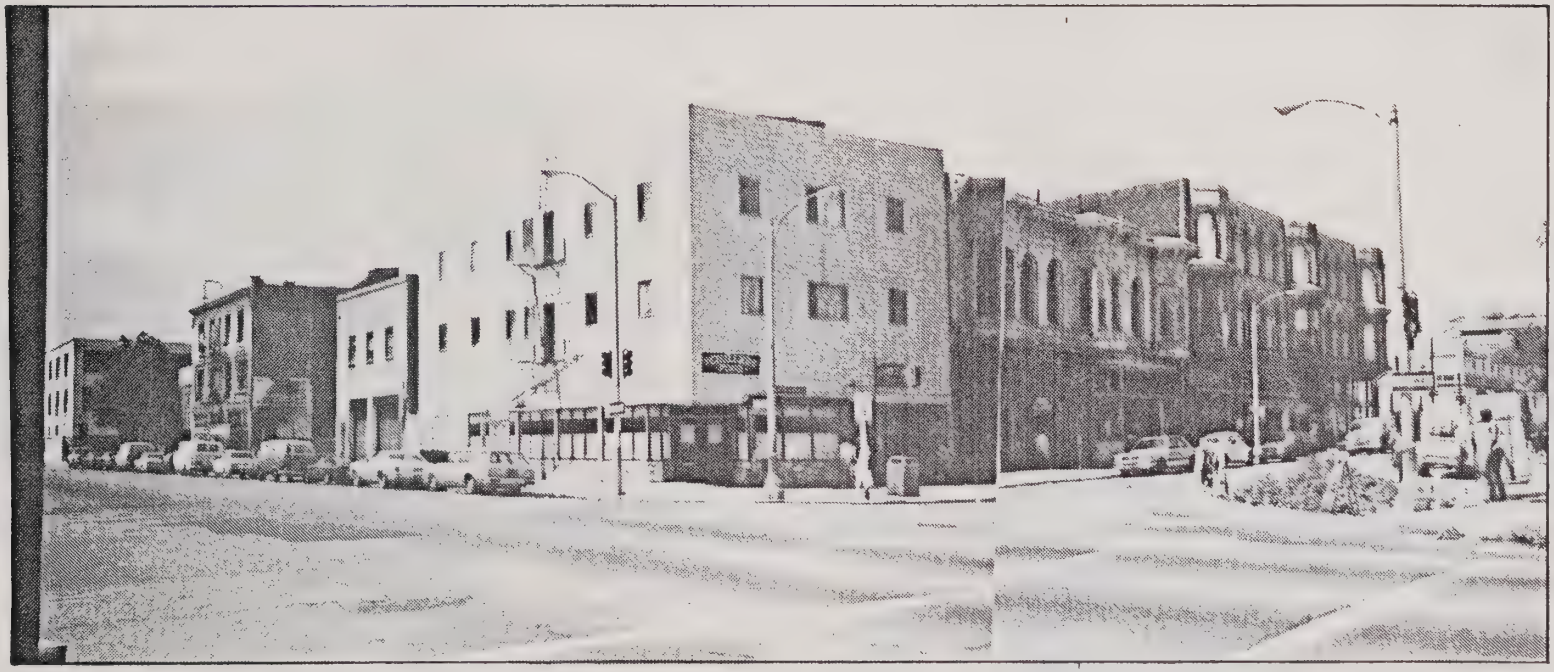


PLATE A:

PLATE B:

PLATE A: VIEW OF THE JOHNSON/DURANTE PROPERTY, RATTO'S, AND THE FREMONT HOTEL LOCATED ON 8TH AND WASHINGTON STREETS.

PLATE B: VIEW OF THE PROJECT SITE AS SEEN FROM 8TH AND CLAY STREETS. THE THREE-STORY FREMONT HOTEL IS LOCATED IN THE CENTERGROUND. THE SALVATION ARMY BUILDINGS ARE TO THE LEFT.

FIGURE 3.4-1 PHOTOGRAPHIC RECONNAISSANCE OF THE PROJECT AREA

PLATE C:

PLATE D:

PLATE E:

PLATE C: VIEW OF THE REAR OF RATTO'S AS SEEN FROM 9TH STREET.

PLATE D: VIEW OF THE PARKING LOT BEHIND THE FREMONT HOTEL AND RATTO'S, AS SEEN FROM THE 9TH STREET.

PLATE E: VIEW OF THE NORTHWEST CORNER OF THE PROJECT SITE AT 9TH AND CLAY STREETS. J & M MEATS AND THE REAR OF THE RATTO'S CAN BE SEEN FROM THIS VANTAGE POINT.

FIGURE 3.4-1 (CONT.) PHOTOGRAPHIC RECONNAISSANCE OF THE PROJECT AREA

PLATE F:

PLATE G:

PLATE F: VIEW OF THE HOUSEWIVES MARKET AND J & M MEATS AT 9TH AND WASHINGTON STREETS. ALAMEDA COUNTY COURTHOUSE AND JAIL CAN BE SEEN IN THE DISTANCE.

PLATE G: VIEW OF THE PROJECT SITE FROM 8TH AND CLAY STREETS. THE STRUCTURE ON THE CORNER IS OWNED AND OPERATED BY SALVATION ARMY. THE HYATT REGENCY HOTEL AND CLOROX BUILDING ARE VISIBLE BEYOND THE SITE IN THE DISTANCE.

FIGURE 3.4-1 (CONT.) PHOTOGRAPHIC RECONNAISSANCE OF THE PROJECT AREA

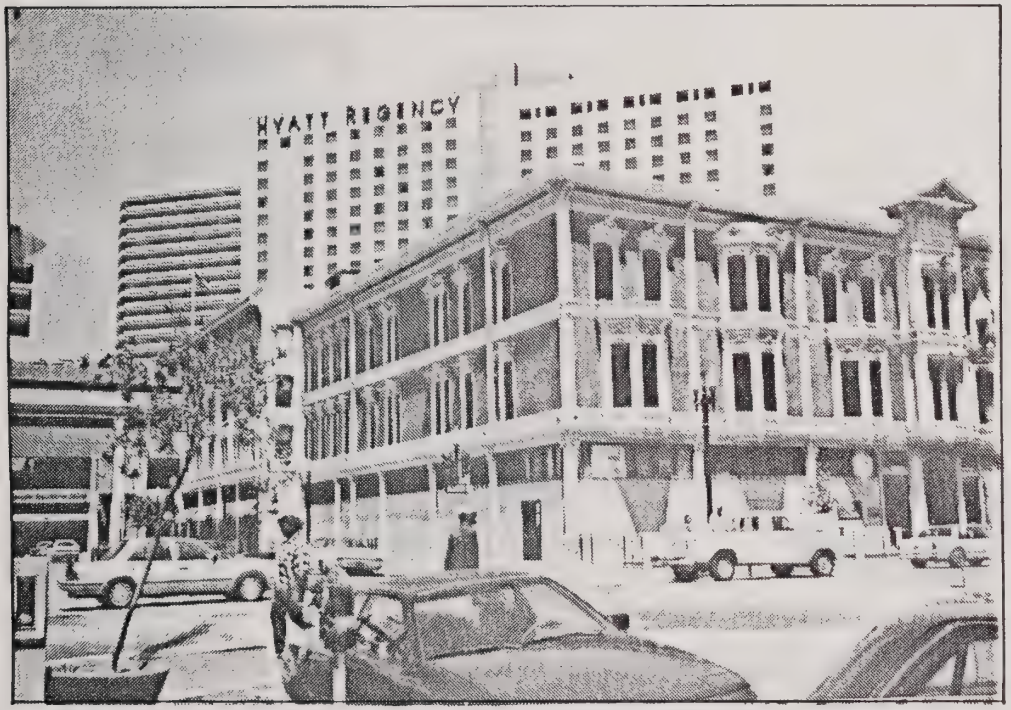


PLATE H:

PLATE I:

PLATE H: A MIXTURE OF OLD AND NEW AS SEEN FROM RATTO'S AT 9TH AND WASHINGTON. THE 19TH CENTURY VICTORIANS HAVE BEEN RESTORED FOR OFFICE AND FIRST FLOOR COMMERCIAL USE. THE OAKLAND CONVENTION CENTER CAN BE SEEN TO THE FAR LEFT OF THIS PHOTOGRAPH.

PLATE I: VIEW FROM THE SITE OF COMMERCIAL AND RESIDENTIAL USES ON 8TH STREET AND WASHINGTON.

PLATE J: VIEW FROM THE SITE OF COMMERCIAL AND RESIDENTIAL USES ON 8TH STREET BETWEEN CLAY AND WASHINGTON STREETS.

FIGURE 3.4-1 (CONT.) PHOTOGRAPHIC RECONNAISSANCE OF PROJECT AREA

PLATE K:

PLATE L:

PLATE M:

PLATE K: VIEW OF VICTORIAN ROW AS SEEN FROM RATTO'S AT 9TH AND WASHINGTON STREETS.

PLATE L: VIEW OF VICTORIAN ROW AS SEEN FROM SWAN'S AT 9TH AND WASHINGTON STREETS.

PLATE M: VIEW DOWN WASHINGTON STREET FROM RATTO'S AT 9TH AND WASHINGTON STREETS. SWAN'S MARKET IS SEEN ON THE LEFT, THE OAKLAND CONVENTION CENTER, CENTERGROUND, RESTORED VICTORIAN STRUCTURES TO THE RIGHT AND THE HYATT REGENCY AND DOWNTOWN OAKLAND IN THE DISTANCE.

FIGURE 3.4-1 (CONT.) PHOTOGRAPHIC RECONNAISSANCE OF PROJECT AREA

IMPACTS

Population. The proposed project would displace the existing residents of the Fremont Hotel and the Salvation Army. Assuming an average of 2.5 persons per new household (based on the proposed sizes of the apartment units) and 70 new apartment units, the project would have a population of 175 residents, a net increase of about 75 residents at the site. The existing residents would be relocated in accordance with the requirements of the California Community Redevelopment Law (see the relocation discussion under Housing). The proposed project will offer housing which is more expensive than the housing that is presently on site. Therefore, the new households are expected to be of higher income and of different ethnic composition than the current residents of the project site and the surrounding area, many of whom are Asian immigrants.

Housing. The proposed project would include demolition of the Fremont Hotel and its 33 low income housing units. The residents of the Fremont Hotel would be relocated. In compliance with the City Building Code maximum occupancy rate, the occupants of the hotel should be primarily single adults. Currenty, there is a lack of suitable housing resources available in the vicinity of the Central District for relocatees. However, all residents will be accommodated in suitable housing which would become available through future public and private housing development and rehabilitation activities prior to demolition. The project construction will not proceed until all relocation is successfully completed in accordance with the California Community Redevelopment Law; therefore, no significant impact would result from the proposed project.

The Salvation Army Building, which provides temporary housing for families with children, also would be demolished. According to the City, the Salvation Army plans to move its operation because this location no longer properly serves its clientele. The Salvation Army may sell its property to the Redevelopment Agency and then lease it back for up to two years while a new facility is developed (City of Oakland, 1987).

The proposed project would contain up to 70 one bedroom and two bedroom apartments. Approximately half of these units (about 35) would be made affordable to families with less than 80 percent of the area's median income. The net effect of the project would be a gain of two low income housing units on site. Total available housing on site would increase by 37 units and would be of higher quality than currently exists.

Although the proposed project would add employment generating retail uses to the project site, it is likely that these new jobs could be filled by persons already residing within commuting distance of the project site. Thus, the future, project site employees should not create a demand for new housing.

The proposed project is consistent in a number of ways with the housing policies set forth in the Housing Element of the Oakland Comprehensive Plan. The project reflects the City's policy to encourage well designed mixed use housing and nonresidential projects within the City's commercial zones, particularly in the Central District. The provision that half of the project's housing units will be affordable to households with incomes below 80 percent of the area's median income is also consistent with the City's policy to include housing for low and moderate income households in all publicly

sponsored redevelopment projects, when feasible. In addition, it is the City's policy to limit the conversion of residential units to nonresidential uses. The proposed project will, in fact, increase the number of total units on the site, while at the same time increasing the number of low to moderate income units.

There are two Housing Element policies which may not be met by the proposed project. The first is the City's policy that the existing stock of residential hotels be preserved whenever feasible and consistent with other City objectives. While the destruction of the Fremont Hotel may be inconsistent with this objective, there are mitigating factors to be weighted. A goal of the proposed project is to intentionally design it to fit harmoniously with the style of the Victorian Row Project. This is consistent with other City policies. To achieve this harmony of design, the Fremont Hotel would need to be demolished. Otherwise the project likely would consist only of a parking structure which would be difficult to make architecturally compatible with the Victorian Row Project. The Fremont Hotel is not compatible architecturally with the Victorian Row Project. (See Section 3.4, Visual Quality, Urban Design, and Historical Resources for more information.) Another mitigating factor is the recent and ongoing rehabilitation of other existing residential hotels in the area, some of which were vacant for many years. These developments may ultimately mean an increase in residential hotel housing in the area, whether or not the Fremont Hotel is retained.

The second Housing Element policy which may not be satisfied by the proposed project is the City's policy that dilapidated housing units should be demolished only if they are economically infeasible to rehabilitate. In the past, the Fremont Hotel has been considered to be in dilapidated condition, and a recent fire (July 24, 1987) considerably damaged the third floor. Following the fire, however, renovations by the building's new owners have satisfied the City's Office of Community Development that the building is now fully habitable. This aspect of the project, therefore, will have to be weighted in conjunction with other aspects which are more consistent with City Housing policies.

It is anticipated that the proposed project will lead to an appreciation of land values on the site and in the surrounding area. This appreciation will occur as a result of more economically productive uses proposed for the site and the contribution these uses will make to the upgrading that is already occurring in the area, such as the Victorian Row Project.

Employment. The proposed project would displace five businesses and the Salvation Army operations from the project site, producing a loss of under 50 jobs (primarily sewing, meat packing and cutting, restaurant, hotel, clerical, social service, and administrative positions). These businesses and the Salvation Army would be relocated; therefore, no significant impact would result from the proposed project.

The project would then add 15,000 square feet of retail commercial floor space with would accommodate a number of small commercial businesses. At present, no tenants have been secured for the project site. At a rate of one employee per 300 square feet of retail space, the commercial portion of the project would generate about 45 sales, clerical, and management jobs. The proposed

apartment units and the parking structure would produce additional building maintenance, security, and management jobs. Therefore, a slight net increase in employment would occur on site with the proposed project.

MITIGATION MEASURES

- Relocate project site residents and businesses in accordance with the requirements of the California Community Redevelopment Law (proposed by applicant).

3.3 TRAFFIC AND PARKING

EXISTING SETTING

Access. The project site is located in downtown Oakland, one block south of the Convention Center and two and a half blocks north of the Nimitz Freeway (Interstate 880). The block which includes the project site is bounded by 8th Street to the south, 9th Street to the north, Washington Street to the east, and Clay Street to the west. Eighth Street connects to Castro Street which has ramps to/from northbound John B. Williams Freeway (Interstate 980).

Eighth Street is 50 feet wide, curb to curb, with four lanes of one way traffic westbound and parking on both sides. Separate left and right turn lanes are striped approaching Clay Street. Ninth Street is 50 feet wide, curb to curb, one way eastbound, with parking on both sides and left and right lanes approaching Washington Street. Washington Street is 40 feet wide with two way traffic and parking on both sides. Clay Street is 50 feet wide, with two lanes northbound and one lane southbound, and parking on both sides.

Traffic signals control the following three intersections: 8th and Washington, 9th and Washington, and 9th and Clay. The 8th and Clay intersection has stop sign control on Clay.

Traffic Operations. Computer analysis of the intersections with a 45 second signal cycle was performed using a signal CAPSSI-85 program. CAPSSI is an acronym for "Comprehensive Analysis Program for a Single Signalized Intersection." CAPSSI-85 utilizes the delay methodology contained in the 1985 Highway Capacity Manual. The signalized intersections operate at a Level of Service A or B as shown in Table 3.3-1. Descriptions of Levels of Service are presented in Table 3.3-2.

The unsignalized 8th and Clay intersection is operating at Level of Service A/B, as determined by the 1985 Highway Capacity Manual analysis for a four leg, nonsignalized intersection.

TABLE 3.3-1. EXISTING P.M. PEAK HOUR LEVELS OF SERVICE FOR PROJECT AREA SIGNALIZED INTERSECTIONS (a)

INTERSECTION	REQUIRED CYCLE TIME	LOS	45 SEC. CYCLE
9th and Clay	32	B	B
9th and Washington	35	B	B
8th and Washington	46	A	B

(a) The CAPSSI - 85 program based on delay methodology contained in the 1985 Highway Capacity Manual was used for analysis. CAPSSI is an acronym for "Comprehensive Analysis Program for a Single Signalized Intersection." The printout of results is on file with the City of Oakland.

Source: RGM Associates, 1987.

TABLE 3.3-2. DESCRIPTION OF LEVELS OF SERVICE FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE (LOS)	DESCRIPTION	AVERAGE VEHICLE DELAY (SECONDS)	VOLUME TO CAPACITY RATIO (V/C)
A	**Free Flow.** No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Insignificant delays.	0-5	0.0-0.59
B	**Stable Operation.** An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. Minimal delays.	5.1-15	0.60-0.69
C	**Stable Operation.** Major approach phase may become fully utilized. Most drivers feel somewhat restricted. Acceptable delays.	15.1-25	0.70-0.79
D	**Approaching Unstable.** Drivers may have to wait through more than one red signal indication. Queues develop but dissipate rapidly, without excessive delays.	25.1-40	0.80-0.89
E	**Unstable Operation.** Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. Significant delays.	40-60	0.90-0.99
F	**Forced Flow.** Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections. Excessive delays.	greater than 60	1.00 and above (a)

(a) Forecast volumes may produce V/C ratios greater than 1.00, although actual volumes cannot, by definition, exceed capacity except for short periods of time.

Sources: "Highway Capacity Manual," Transportation Research Board, Special Report No. 209, Washington, D.C., 1985.

"Interim Materials on Highway Capacity," Transportation Research Board, Circular No. 212, Washington, D.C., January 1980.

Project Site Vehicle Trip Generation. It is expected that the Fremont Hotel and existing businesses on the project site have minimal traffic generation which is associated principally with workers and services. Assuming ten daily trip ends (TE) for each of the six businesses, 12 TE for the Salvation Army and three TE/dwelling unit for the 33 households in the Fremont Hotel, it is estimated that the site presently generates 171 daily trip ends and 18 P.M. peak hour trip ends (see Table 3.3-3). A trip end represents either an origin or destination trip.

TABLE 3.3-3. ESTIMATED VEHICLE TRIP GENERATION OF EXISTING LAND USES AT THE PROJECT SITE

LAND USE	UNITS	TRIP ENDS/ UNIT	DAILY TRIP ENDS	P.M. PEAK HOUR PERCENTAGE	P.M. PEAK HOUR TRIPS IN	P.M. PEAK HOUR TRIPS OUT
Businesses	6	10	60	10	3	3
Salvation Army	1	12	12	10	1	1
Residential	33	3	99	10	7	3
Total			171		11	7

Source: RGM Associates, 1987.

Parking. Existing parking in the vicinity of the project site is shown in Figures 3.3-1 and 3.3-2 from the Southwest CBD Parking Study as updated from data provided by the City Traffic Engineering and Parking Division. Also a field survey of street parking was conducted by the Department in 1986 with the results shown in Table 3.3-4. Occupancy over 100 percent includes illegally parked vehicles and is indicative of a greater demand for parking than the legal parking spaces available. It is apparent that a parking garage on this block would be well utilized.

The Southwest CBD Parking Study in 1982 determined that "the study area is at or near practical capacity throughout weekday business hours." The projected 1986 parking shortfall was 360 to 480 parking spaces. The project site is one of three sites identified to meet the anticipated shortfall (City of Oakland, 1982).

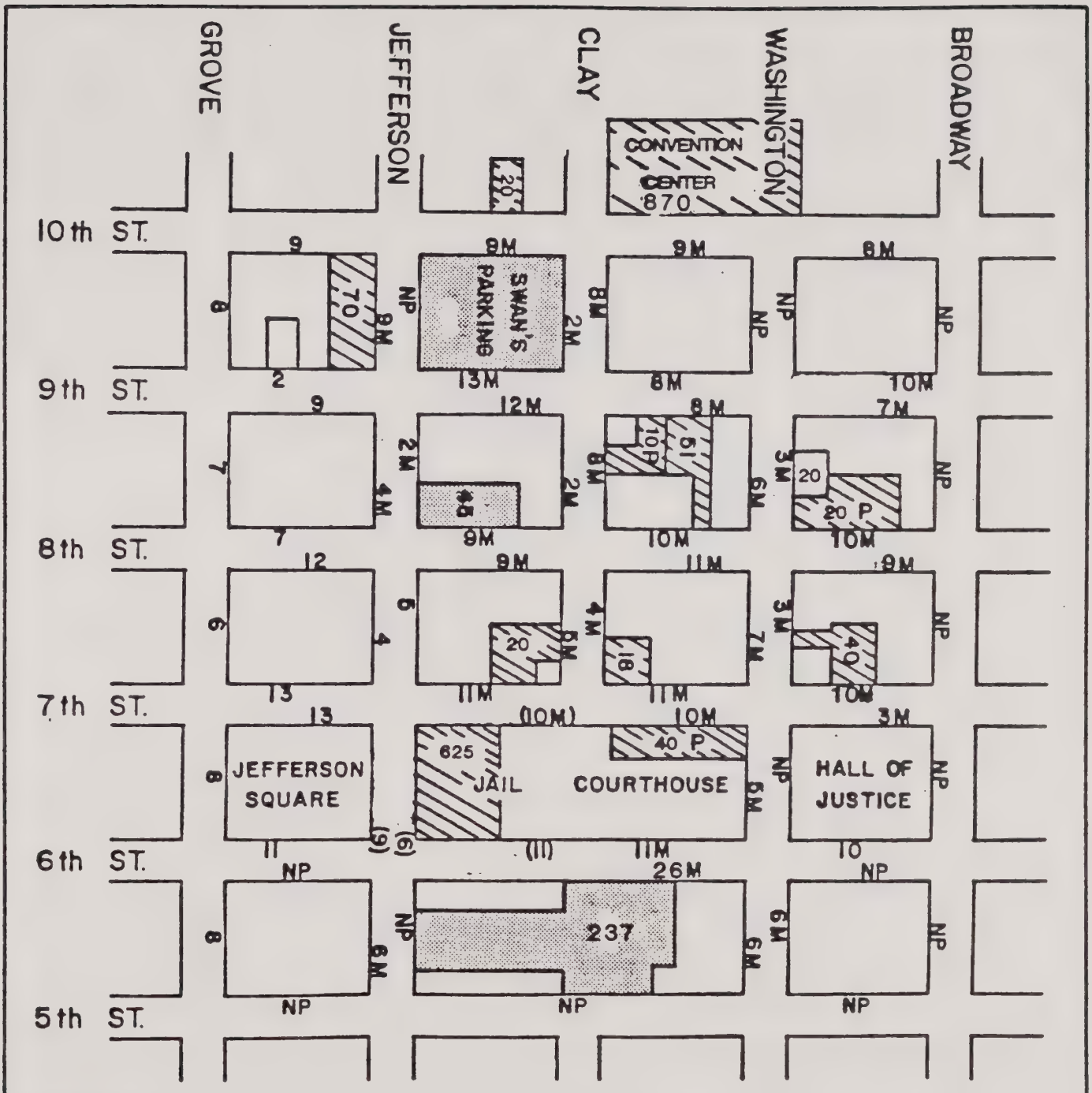
Transit Service. AC Transit provides bus service to/from the project area with five routes running north/south on Broadway (within two blocks of the project site) and one operating east/west on 7th Street (one block from the site). These routes provide service to/from Piedmont, Montclair, Berkeley, East Oakland, West Oakland, Richmond, Castro Valley, and the Oakland Central Business District, including several BART stations. The nearest BART station is about four blocks from the project site at Broadway and 12th Street.

TABLE 3.3-4. RESULTS OF STREET PARKING SURVEY AROUND THE PROJECT SITE

LOCATION	NUMBER OF METERS (a)	TURNOVER	PERCENT OCCUPANCY
Clay, W. Side	4	1.0	175 (b)
Clay, E. Side	4	1.5	56
Washington, W. Side	7	5.2	110 (b)
Washington, E. Side	3	3.7	103 (b)
8th, S. Side	11	4.6	101 (b)
8th, N. Side	10	5.0	96
9th, S. Side	8	4.2	80
9th, N. Side	13	2.1	37

(a) Time Limit: 2 hours
(b) Includes vehicles illegally parked.

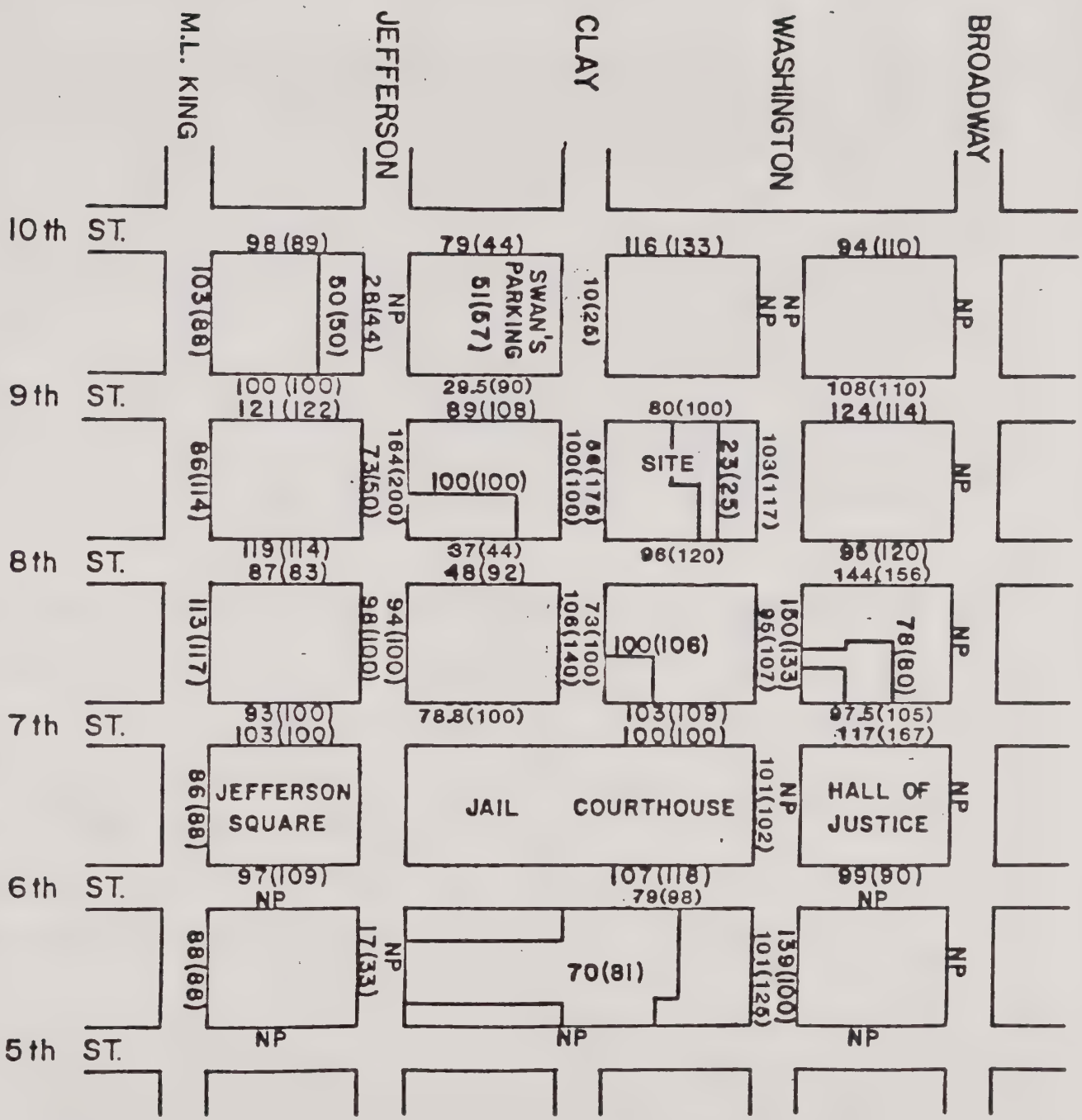
Source: City of Oakland, June, 1985.



earth metrics

SCALE
NO SCALE

FIGURE 3.3-1. INVENTORY OF EXISTING PUBLIC PARKING FACILITIES



LEGEND

AVERAGE % OCCUPANCY 9:00 A.M. – 5:00 P.M.
(PEAK HOUR % OCCUPANCY) = 97(100)
NO PARKING = NP

SOURCE: CITY OF OAKLAND, 1982, 1986 (METERS ONLY)

earth metrics

N

SCALE
NO SCALE

FIGURE 3.3-2. EXISTING PUBLIC PARKING FACILITIES USAGE

IMPACTS

Vehicle Trip Generation and Distribution. As shown in Table 3.3-5, the project's proposed residential and commercial uses would generate 699 daily weekday trip ends and 74 P.M. peak hour trip ends (45 inbound/29 outbound). These trips are expected to be oriented to/from the proposed parking structure. Since the parking structure also would provide parking for adjacent land uses, some trips generated from these land uses also would be oriented to and from the parking structure. Assuming full occupancy of the 500 space parking structure and a five percent inbound/20 percent outbound split of parking structure traffic during the P.M. peak hour, the parking structure would generate 25 inbound and 100 outbound trip ends. These trip ends do not include trips generated by the proposed commercial and residential uses. The net increase in trip generation with the elimination of the existing uses and replacement with the proposed uses is 528 daily trip ends and 181 P.M. peak hour trip ends (59 inbound/122 outbound). The distribution of the net increase in project trips on local roadways is shown in Figure 3.3-3. This distribution was based on the traffic assumptions used in the EIR for the Oakland City Center and on existing traffic volumes and patterns in the immediate area of the project site.

TABLE 3.3-5. ESTIMATED VEHICLE TRIP GENERATION OF THE PROPOSED PROJECT USES

LAND USE	DAILY TRIP ENDS	P.M. PEAK HOUR IN	P.M. PEAK HOUR OUT	P.M. PEAK HOUR TOTAL
Retail Commercial (a)	300	15	15	30
Residential (b)	399	30	14	44
Parking Structure (c)	N/A	25	100	125
Total	699	70	129	199

(a) Assumes 15,000 square feet of retail commercial uses, 20 daily trip ends per 1,000 square feet, a 10 percent P.M. peak hour share, and a 50 percent inbound/50 percent outbound split. The daily trip generation assumes a 50 percent reduction for dual purpose trips and local walk-in trips.

(b) Assumes 70 apartment units, 5.7 daily trip ends per unit, an 11 percent P.M. peak hour share, and a 68 percent inbound/32 percent outbound split.

(c) Assumes full occupancy and a P.M. peak hour split of five percent inbound and 20 percent outbound. These are existing trips and associated with nearby development and redistributed from other, distant parking areas. These trip ends do not include trips generated by the proposed commercial and residential uses.

SOURCE: CALTRANS, Trip Ends Generation Research, 15th Progress Report, 1983; RGM Associates, 1987

As debris is created from demolition of the building or as the earth on the project site is graded, dust may become airborne creating TSP. As a general construction practice, water is normally used to keep the airborne dust to a minimum. Since the demolition and grading operations are continuous, it is not always possible to keep the material watered down enough to prevent airborne dust. Any airborne dust being caught by the wind would be carried toward adjacent businesses and residences.

Dust may be created along the haul route caused by debris material becoming airborne during the haul trip. Normal construction practice can include the wetting down of loads prior to leaving the project site and covering of the loads.

In addition to generating emissions of CO, Hc, and NOx from the operation of gasoline and diesel powered equipment, construction would also produce insignificant air pollutant emission in the forms of hydrocarbons for asphalt and architectural coatings. Emissions of hydrocarbons from asphalt and architectural coatings are regulated by the BAAQMD, hydrocarbons being precursors of the chemical ozone. It is not expected that these emissions would be significant at the regional level nor would they create local violations of air quality standards.

Motor Vehicle Impacts. The proposed develoment would generate an increase in vehicle trips on local streets and potentially increase the ambient CO levels. However, based on a previous analysis for a nearby development, utilizing the California Line Dispersion (CALINE3) model for potential dispersal, the 1995 eight hour CO concentration levels due to growth and increased traffic associated with the project are anticipated to decrease from their current levels and remain well below the 9.3 parts per million (ppm) Federal standard (City of Oakland, 1985). This decrease will be the result of more stringent emission controls on motor vehicles.

A special concern of this project is the CO level within the parking structure and its effect on parking structure employees and nearby residents. California Air Resources Board emission factors (EMFAC7C) were utilized to determine emission of cars entering and leaving the parking structure. The parameters included the following assumptions: (1) calculation year 1995; (2) 50 percent of cars in cold start condition; (3) 15 percent of cars in hot start condition; and (4) 35 percent of cars in hot stabilized condition. A box model procedure was used to determine the worst case one hour carbon monoxide concentration occurring on the ground level of the parking structure (Sculley, 1987). For the calculations, it was assumed that one half of the parking structure capacity departed and one quarter of the parking structure capacity entered. Although the design plans of the parking structure have not been finalized, it was assumed that each parking level was above ground with a maximum capacity of 83 vehicles and a natural ventilation rate of six air changes per hour. The length and width of the parking structure, obtained from preliminary sketches, were 200 feet and 125 feet, respectively. The height used was a standard 10 feet for each level.

The resulting worst case one hour CO concentration at the ground level of the parking structure was 30 ppm. This value, in combination with the highest one hour concentration (11 ppm) recorded at the Oakland BAAQMD air quality monitoring station over a three year period, yields a total worst case one

hour concentration of 41 ppm. This value would exceed both the California and the Federal one hour CO standards for ambient of 20 ppm and 35 ppm, respectively. However, these standards are not applicable to parking structures because they are semi enclosed and the internal air quality would not be considered representative of outside conditions.

If the parking structure includes a toll booth with at least one operator, a more appropriate air quality standard to use would be the Occupational Safety and Health Administration's eight hour CO concentration standard 50 ppm.

Conservative adjustments were made to the worst case one hour concentration for the model to estimate a worst case eight hour concentration from parking structure vehicle emissions. This value was summed with the worst case eight hour CO concentration (eight ppm) recorded at the Oakland BAAQMD air quality monitoring station over the past three years. The resulting worst case eight hour concentration was 21 ppm. Based on these calculations, the toll booth operator(s) will not be exposed to eight hour CO concentrations which violate OSHA standards.

Also of concern is the exposure of the future residential and commercial occupants of the proposed project to CO from the parking structure. Depending upon the parking structure design, future residential and commercial occupants of the project could potentially be exposed to high levels of CO. Methods of limiting the exposure of these occupants to CO generated within the parking structure are recommended under Mitigation Measures.

MITIGATION MEASURES

Construction

- Implement standard dust control measures, such as wetting disturbed soils and demolition remains and cleaning construction vehicles of dirt and dust before they travel off site.

Operations

- The parking structure design should include sufficient wall area open to natural ventilation to allow for at least six air changes per hour. If possible, all garage levels should be above ground. Mechanical ventilation, although expensive to install and operate, is also a viable solution to help reduce CO levels and improve air quality.

- If the facade design does not meet the ventilation assumptions used in the Impact discussion, then parking management programs also can be developed to reduce vehicle travel inside the parking structure, especially during peak hour periods. For example, long term parking spaces could be restricted to the upper levels and short term parking could be confined to the ground floor level to reduce the distance that the more numerous short term parkers must travel within the parking structure.

- To reduce the quantity of CO emitted while cars idle and drive in the cold start condition, avoid the use of toll booths or implement measures to keep vehicle idling time and congestion to a minimum. For example,

there could be more than one exit toll booth in operation during peak travel periods or parking meters could be used to avoid the need for toll booths. In addition, access ramps should be located and designed to minimize conflicts with adjacent street traffic.

- To protect residential and commercial occupants of the project from high CO levels, the parking structure design should maintain separation of parking structure air from residential and commercial air supplies. Solid walls should separate the parking structure from the residential and commercial areas. Mechanical ventilation for the residential and commercial areas should be oriented away from the parking structure.

3.6 NOISE

EXISTING SETTING

Sensitive Receptors. Land uses in the project area include service commercial, residential and light industrial. The noise sensitive receptors of concern are residences located to the south and west of the site and St. Mary's Church situated on the corner of Jefferson and 8th Streets.

Noise Sources. Noise sources affecting the project area include: motor vehicles on local streets; motor vehicles on the Nimitz Freeway (Interstate 880) and Interstate 980; the BART line which operates above ground to Clay Street; as well as railroad operations on the Southern Pacific Railroad (SPRR) tracks and the Union Pacific Railroad (UPRR) tracks, both located to the west of the site.

The SPRR and the UPRR operate daily approximately 42 and 10 trains, respectively. BART tracks carry about 376 trains each weekday. During BART's peak hours (7:00 to 8:20 A.M. and 4:40 to 6:00 P.M.), the BART trains run once every three minutes, 45 seconds instead of at the usual five minute intervals. In the project area, the Nimitz Freeway carries an average daily traffic volume (ADT) of 191,000 vehicles and Interstate 980 has an ADT of 33,000 vehicles.

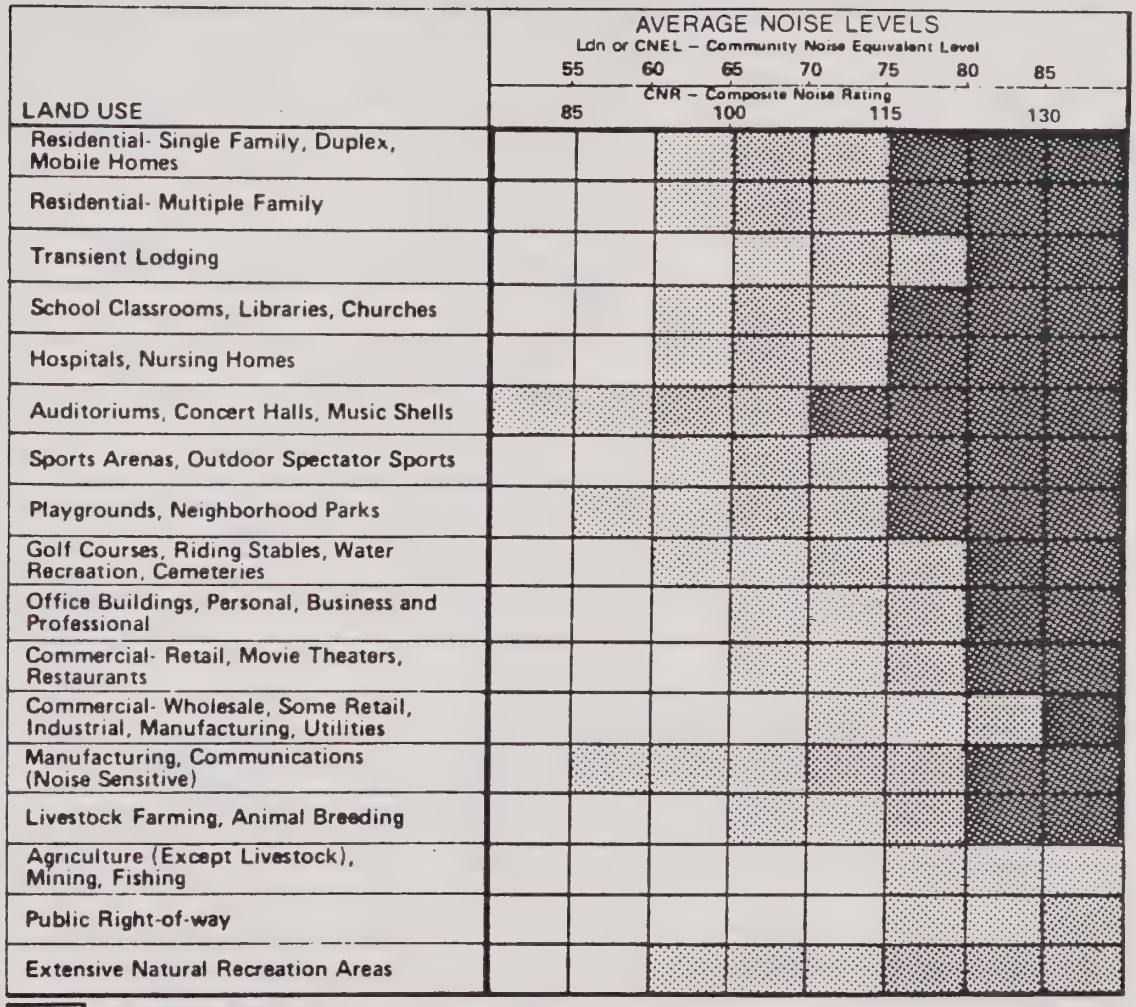
There are two airports in the general area of the project site. These are the Oakland Airport, located approximately five miles southeast of the site, and the Alameda Naval Air Station, situated about two miles away to the southwest. Neither airport generates a significant amount of noise at the project site, although occasional aircraft departures and arrivals are audible.

Noise Standards. The City of Oakland Noise Element adopts the HUD Acceptability Ranges of Exterior Noise Level by Land Use Category (see Figure 3.6-1). These standards identify an acceptable exterior sound level of up to 65 Ldn/CNEL for multiple family dwellings and a maximum acceptable level of up to 75 Ldn/CNEL for retail commercial areas.

Sound Measurements. In order to determine the existing Community Noise Equivalent Level (CNEL) in the area of the project site, six 15 minute measurements were made at project area locations containing various land uses, including commercial, church, and residential. The measurement sites are shown in Figure 3.6-2 and measurement results are presented in Table 3.6-1.

The measurement recorded on 8th street and those at the intersections of 9th/Washington Streets, 8th/Clay Streets, and 9th/Clay Streets provided CNELs between 68 dB and 72 dB, which are within the normally acceptable range for exterior noise levels in the nearby commercial areas. However, the measurements obtained at the intersections of 8th/Washington Streets and 8th/Jefferson Streets were 72 dB and 73 dB, respectively. These CNELs are above the adopted acceptable levels for the residential land uses near these intersections.

In addition to the daytime sound measurements reported in Table 3.6-1, 24 hour sound level measurements were obtained at the following two upstairs window locations: (A) at the Salvation Army facility, facing Clay Street near 8th



CLEARLY ACCEPTABLE
The noise exposure is such that the activities associated with the land use may be carried out with essentially no interference from aircraft noise. (Residential areas: both indoor and outdoor noise environments are pleasant.)

NORMALLY ACCEPTABLE
The noise exposure is great enough to be of some concern, but common building construction will make the indoor environment acceptable, even for sleeping quarters.

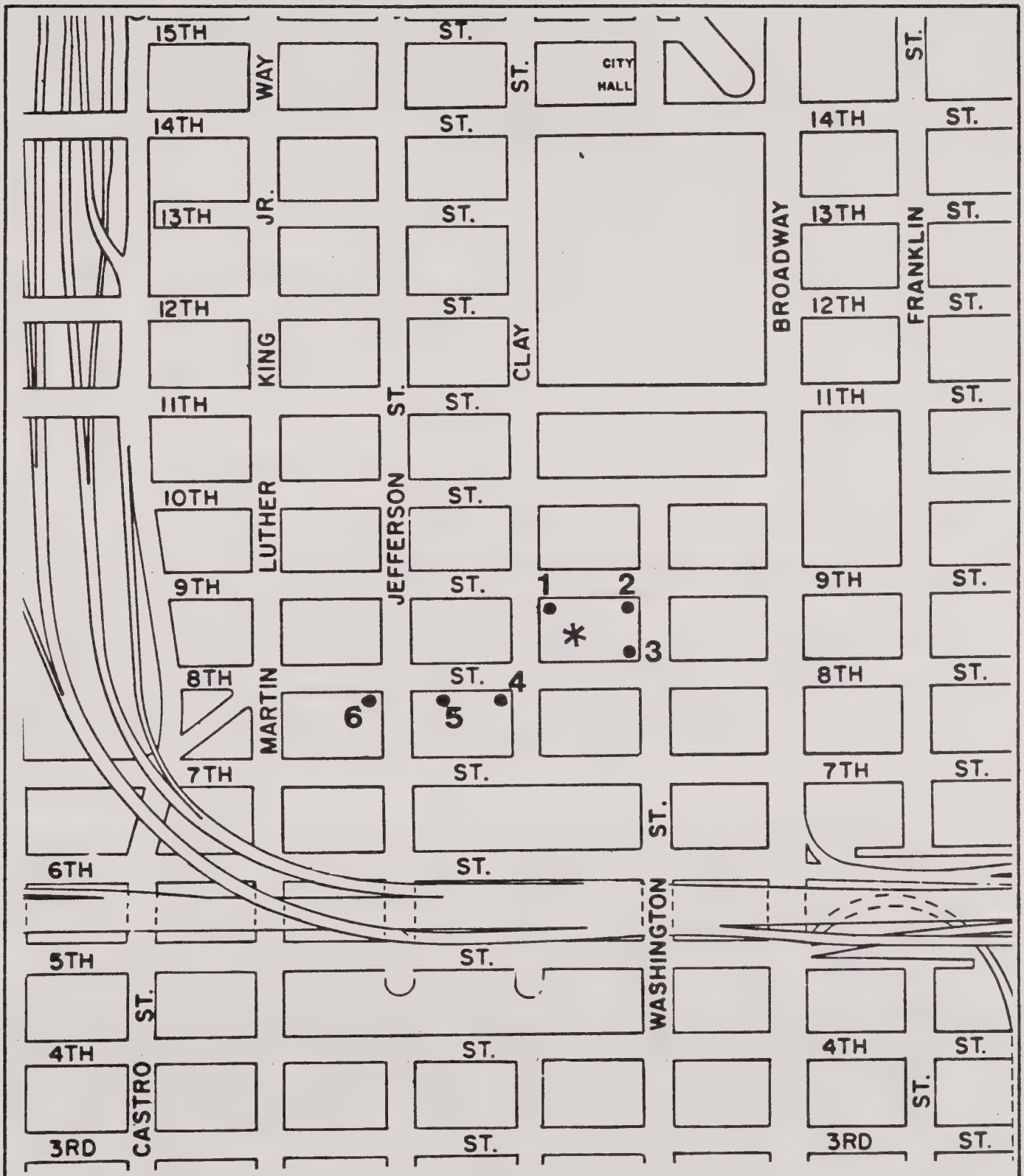
NORMALLY UNACCEPTABLE
The noise exposure is significantly more severe so that unusual and costly building construction is necessary to insure adequate performance of activities. (Residential areas: barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable.)

CLEARLY UNACCEPTABLE
The noise exposure is so severe that construction costs to make the indoor environment acceptable for performance of activities would be prohibitive. (Residential areas: the outdoor environment would be intolerable for normal residential use.)

SOURCE: OAKLAND NOISE ELEMENT, 1974

earth metrics

FIGURE 3.6-1 ACCEPTABLE RANGES OF EXTERIOR NOISE LEVELS BY LAND USE CATEGORY IN OAKLAND



earth metrics

SCALE
1" = 460'

FIGURE 3.6-2 SOUND MEASUREMENT LOCATIONS

TABLE 3.6-1. RESULTS OF SOUND MONITORING

LOCATION	DISTANCE FROM THE CENTERLINE (ft)	MEASURED CNEL (dB)
(1) 9th Street/Clay Street	30	68
(2) 9th Street/Washington Street	30	68
(3) 8th Street/Washington Street	30	72
(4) 8th Street/Clay Street	30	72
(5) 8th Street	30	69
(6) 8th Street/Jefferson Street	30	73

Street; and (B) at Ratto's facing Clay Street and about 50 feet from Washington Street at Location A, the 24 hour measurement yielded a CNEL of 70 dBA, which is two dBA lower than the value indicated by the daytime measurement at 8th and Clay Streets. At Location B, the 24 hour measurement yielded a CNEL of 68 dBA, the same as the value obtained in the daytime measurement at 9th and Washington Streets. In each case, the CNELs remain in the same evaluation category of the Noise Element guidelines as indicated by the results at their comparable daytime measurement location.

IMPACTS

Construction Noise. Initial noise impacts of the proposed project would result from construction and demolition activity. Construction noise, which includes noise from the operation of paving equipment, trucks and other equipment, would increase ambient noise levels in the project vicinity. Major sources of construction noise and the typical sound levels in decibels (dBA) at 50 feet are: dump trucks (88), portable air compressors (81), concrete mixer (85), piledriver (101), jackhammer (88), bulldozer (87), paver (89), pneumatic tools (85), backhoes (85) (EPA, 1981). Similar types of equipment are used in the demolition process. It should be noted that the initial effect of construction noise would be temporary and confined to relatively small areas at any one time. In addition to noise created at the site, some noise would also be produced by construction related trucks traveling to and from the project site.

Motor Vehicle Traffic Noise. After demolition and construction, noise impacts will occur as a result of the cumulative future traffic conditions. The future sound levels are calculated based on the existing levels with adjustment for the projected increase in traffic volumes. Table 3.6-2 summarizes the existing and predicted year 1992 sound levels at the six measurement locations due to: (1) existing traffic plus annual growth to the year 1992; and (2) existing traffic plus annual growth plus the effect of the project.

The existing sound levels at commercial Locations 1, 2, 4 and 5 listed in Table 3.6-2 are within the "Normally Acceptable" range according to the Land Use Compatibility Guide adopted by the City of Oakland. "Normally Acceptable" means that the noise exposure is great enough to be of some concern, but common building construction will make the indoor environment acceptable, even for sleeping quarters. Based on a three percent annual growth projection used in the traffic analysis in Section 3.3 (without the project), the sound levels at each of these locations would increase by less than one dBA in the year 1992, an imperceptible increment. The resulting future sound levels would remain within the "Normally Acceptable" range. The sound levels in 1992 with the project at Location 1 would increase by three dBA, as compared to the 1992 no project condition, causing a slightly noticeable change in the ambient sound level. However, the resulting sound levels would remain within the "Normally Acceptable" range for exterior noise in commercial areas.

Location 3 in Table 3.6-2 has a measured sound level of 72 dBA which is "Normally Unacceptable" for residential land uses. The future sound levels in 1992 with or without the project are almost identical and are less than one dBA higher than the existing sound levels. The resulting sound levels would remain within the "Normally Unacceptable" range.

Location 6, the 8th Street/Jefferson Street intersection, has an existing sound level of 73 dBA which is "Normally Unacceptable" for residences and churches in the City. However, predicted future traffic volumes in 1992 without the project will increase the sound level by less than one dBA. With the project, the sound level would increase by one additional dBA to 74.7 dBA, which is still within the "Normally Unacceptable" range.

TABLE 3.6-2. COMPARISON OF EXISTING AND FUTURE (1992) SOUND LEVELS IN THE PROJECT AREA (CNEL)

LOCATION	1987 EXISTING (dBA)	1992 EXISTING & GROWTH (NO PROJECT) (dBA)	1992 EXISTING & GROWTH & PROJECT (dBA)
(1) 9th Street/Clay Street	68	68.6	71.8
(2) 9th Street/Washington Street	68	68.6	69.2
(3) 8th Street/Washington Street	72	72.6	72.7
(4) 8th Street/Clay Street	72	72.6	73.5
(5) 8th Street	68	68.6	68.7
(6) 8th Street/Jefferson Street	73	73.6	74.7

Growth = Three percent annual increase in existing traffic to the year 1992
Source: Earth Metrics Incorporated, 1987

The project site is located within an area of Oakland which is recognized as being noisier than is desirable (City of Oakland, 1974). However, pursuant to the Oakland Noise Element, new development will be permitted if the project design plans incorporate appropriate noise-abatement features.

MITIGATION MEASURES

Construction Noise. The following measures are recommended to mitigate the temporary noise impacts in the neighborhood originating from the project construction.

- To minimize the noise impact of construction, all construction and demolition vehicles and equipment should be properly muffled. Holes for pile driving should be predrilled.

- Construction activities at the project site should be restricted to minimize disturbance.

- A solid eight foot high fence should be installed around the site during construction.

- The public should be informed of proposed construction timelines to minimize potential annoyance related to construction noise. This is important for any residences located within a few hundred feet of construction activity.

Motor Vehicle Traffic Noise. The following measures are recommended to mitigate the noise impacts associated with motor vehicle traffic:

- New developments at or in the vicinity of Location 2 (corner of 8th and Jefferson Streets) and Location 3 (corner of 8th and Washington Streets) will require the incorporation of noise mitigation measures beyond common building construction. These measures could include use of appropriate double pane glass or heavier than standard, single pane glass, sealing of all frames and seams, effective weather seals for windows and doors, and insulation in walls and roof/ceiling spaces.

- Preparation of an acoustical study to meet State of California Title 24 standards will be required for the final design of the residential portion of the project.

- Rooftop equipment at the project should be enclosed to control potential noise impacts created by the equipment.

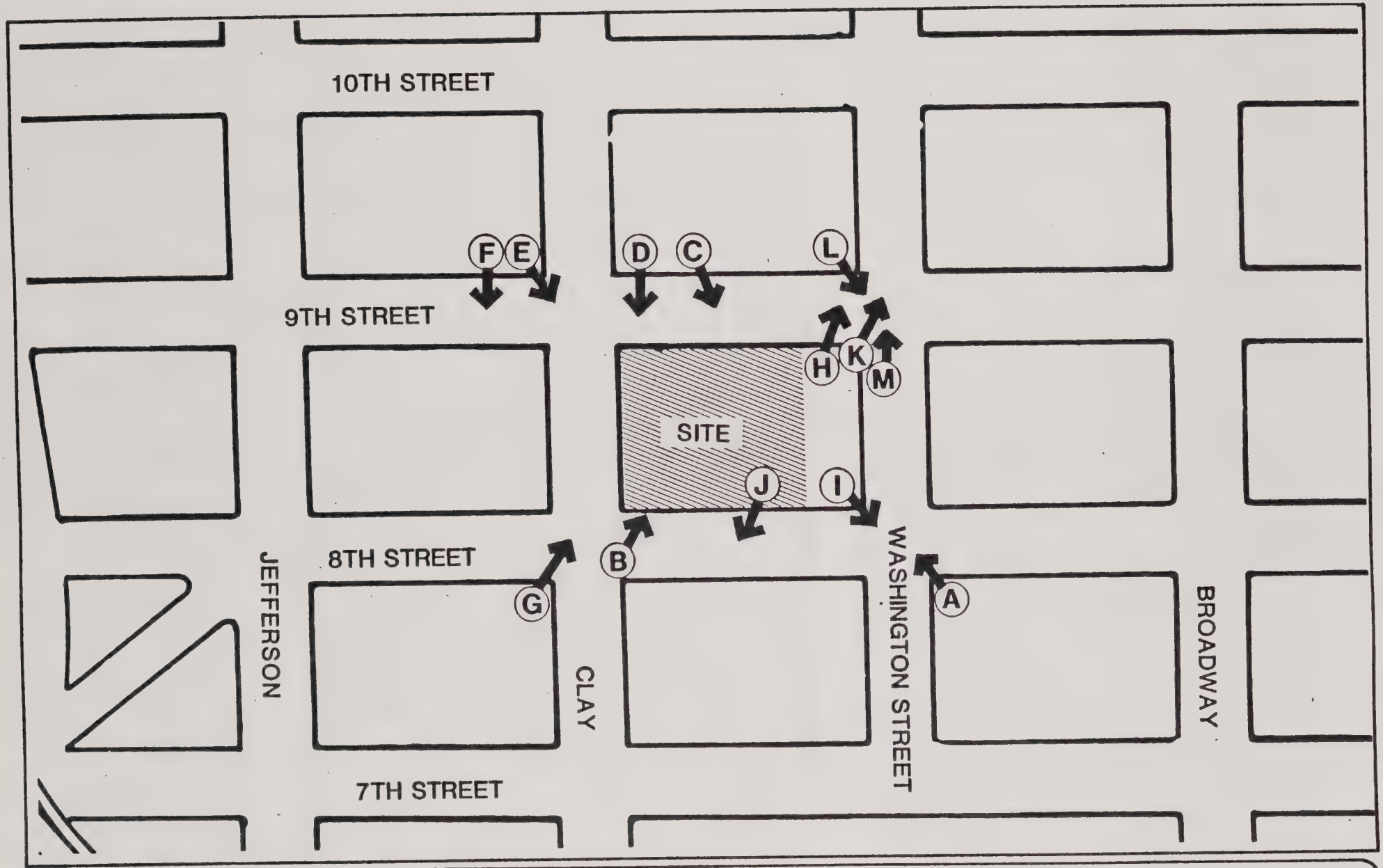


FIGURE 3.4-2. LOCATIONS OF PHOTOGRAPHIC VIEWPOINTS

Pedestrian viewsheds are similar to the viewsheds available to motorists. The visual significance of nearby conditions is substantially greater for pedestrians. Aesthetics, lighting, landscaping and spatial relationships (setbacks, building heights) are emphasized. The primary viewshed for pedestrians in the project vicinity are to the north down Washington Street and to the south along Clay and Washington Streets where views terminate at a central focal point (see Figure 3.4-1, Plates F and M). In addition, views along 9th Street at Victorian Row are visually and aesthetically significant. Restoration of these structures enhances the character of Old Oakland and provides a neighborhood identity and scale which is inviting to pedestrians and motorists.

Historical/Architectural Character of the Project Area. Buildings considered in this report to be historic are listed on the National Register of Historic Places, are designated as City Landmarks, or are on the Landmark Preservation Advisory Board Study List. Structures included on the National Register have been reviewed by the State Historic Preservation Office and approved by the Keeper of the Register. Any alterations to these buildings must be conducted in accordance with the Secretary of the Interior's Standards for Historic Preservation and with the approval of the Advisory Council on Historic Preservation.

Structures which are City Landmarks are designated by recommendation of the City's Landmarks Preservation Advisory Board to the Planning Commission, which then holds a public hearing. Following the public hearing, the Planning Commission makes a recommendation to the City Council. The City Council then passes an ordinance designating the structure as a City Landmark or rejects the Commission's recommendation. Any exterior alterations are reviewed by the City Planning staff. The Landmark Preservation Advisory Board Study List consists of those structures on which the Board is advising the City as to their status. The Advisory Board makes recommendations to the City Planning Commission on the need for preserving and restoring specific structures.

The project site contains four structures: the J and M Meat Company building, which also houses 9th Street Marketing Inc.; the two Salvation Army headquarters buildings; and the Fremont Hotel. The J and M Meat Company building is a one and one half story brick structure with industrial steel sash windows. The building is located on the corner of 9th and Clay Streets with an entrance on the corner. It is an undistinguished building architecturally, probably built in the 1930s, but well maintained. The Salvation Army building, located on the corner of Clay and 8th Street, was built in the 1960s of concrete block. It is two stories, with banks of windows and infill panels between the floors. On 8th Street, there is a separate Salvation Army building, brick with a grilled transom over the door with a large leafy tree in front. This building abuts the Fremont Hotel (see Figure 3.4-1, Plates B, C, D, E, and G).

The Fremont Hotel was built in 1909, at a later architectural period than the buildings of the nearby Victorian Row. This modest two story building had a third story added in 1929. Charles F. Mau was the architect of the original building. The addition in 1929 was done in the office of A.M. Milwain. Both of these architects had substantial practices in Oakland. The design of the hotel reflects a restraint and business-like quality. The ornamentation is minimal: four plain pilasters between the first and second floors with Ionic

capitals, and transom strips of beveled glass over the street level stores. The building is a fairly dilapidated brick structure, with a stucco finish on the third floor. The street facade has been altered, but retains the original cast iron engaged columns, the transom bar and the prism glass in the transom openings.

The Fremont Hotel was designated as a "contributing" building to the Old Oakland Historic District by the Oakland Historic Resource Survey. A contributing building, site, structure or object adds to the historic architectural qualities, historic associations, or archaeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time, or is capable of yielding important information about the period, or b) it independently meets the National Register criteria.

The Fremont Hotel was determined to be ineligible for inclusion in the National Register. However, the hotel was found to contribute to the historic district because it was present during the period of significance--the early years of the 20th Century when Oakland was expanding in population and commerce. This expansion resulted partially from the San Francisco earthquake and fire, and also from the substantial increase in agriculture in California's Central Valley, much of which used Oakland as a shipping hub.

Between 1905 and 1910, there were five small hotels built in the area of Washington Street and 8th and 9th Streets. The Fremont Hotel (originally named the Avery Hotel) was constructed as a two story building with stores on the ground floor and lodging on the second. Since the hotel was located only two blocks from the passenger train station and close to the center of town, it was convenient for commercial transients.

Although the hotel is a contributing structure to the Old Oakland Historic District, only the cast iron columns and the transoms over the main floor windows distinguish it stylistically. Even with these architectural features, this building does not have any individual historic or architectural qualities that make it significant. The Fremont Hotel is not as elaborately detailed as the hotels on Washington Street, which were built 12 years earlier and its facade is not as richly ornamented as the facades of the nearby Victorian Row buildings. The two architects involved in designing the Fremont Hotel were important contributors to the growth of Oakland. However, other buildings which were designed by these architects and which possess more historical architectural qualities are still in existence in other areas of the City.

The other two properties on the block are outside the project site facing Washington Street. Both properties are in the Old Oakland Historic District. The G.B. Ratto & Co., International Grocers has been on the site for many years. Historically, the building is known as the Gooch Block, Winsor House Hotel. It was built in 1876, and the architect was J.S. Tibbals. At the present time, Ratto's has a large lunch room on the north side and a retail grocery business on the south side. There are storage rooms at the back and residential or office spaces above. The building is brick, three stories in height, and Italianate in style with wooden trim. There are three triangular two storied bays on the front, containing three windows each. Between the bays are four windows with Romanesque arches over them. The central bay had a very elaborate circular dome with railings and crestings, but that and the

wooden cornice have been removed from the building. The Oakland Cultural Survey listed this building as a primary contributor to the Old Oakland Historic District, and in 1983 it was given Landmark designation (see Figure 3.4-1, Plates A and C).

The Johnson/Durante property contains three buildings, two of which front on Washington Street and one which fronts on 8th Street. The two story, brick midblock building on Washington Street is a contributor to the Old Oakland Historic District. There are three shops on the street level, and perhaps housing above. Two triangular bays appear on each edge, and each has three tall windows. The other building on Washington Street at the corner of 8th Street is of the same height as the midblock building, but it has been "modernized" on the facade. All the trim has been removed from the windows, the cornice is gone, and stone facing has been added to the street level store fronts. There is housing on the two upper stories. The third structure on the Johnson/Durante property is the Wolf Building. This building faces 8th Street, but its address is listed as 721 Washington Street. Built in 1878-79 by Haskell and Smilie, and designed by an unknown architect, it is a two story brick structure with a cement facade. It has two garage doors with an entrance to the left and industrial steel sash windows on the second story. At one time the building contained a produce market. It now appears to be empty, although it may provide storage for the businesses facing Washington Street (see Figure 3.4-1, Plates A and B).

The five blocks which surround the project area contain a number of buildings which were built in the late nineteenth and early twentieth centuries. Although many of these buildings are deteriorated, restoration is possible and desirable as witnessed by the Victorian Row project. The general height of two to three stories, plus the often elaborate architectural detailing, create a unity of design. The many vacant lots attest to the general lack of maintenance which occurred when the downtown moved north and the village of Oakland grew into a town, then a city. Some of the buildings which remain possess great architectural merit.

The 30 year old Housewives Market building covers half the block between Jefferson and Clay Streets, and 8th and 9th. It is a long one story shed like structure housing separate selling stalls. The other half of the block has two buildings which face Clay Street, one two storied and one three storied. Both have commercial areas at the street level and residential space above (see Figure 3.4-1, Plate F).

The block between 7th and 8th, and Clay and Jefferson Streets contains one, two and three story structures which vary in style and age from contemporary to Victorian. Three Victorian wood frame residences on Jefferson Street are listed as contributors to the district. These are 708-710 Jefferson, built in 1878-79 and designed by Augustus Cates; 716-718 Jefferson, built in 1910 and designed by J.J. Kessing; and 722 Jefferson, built ca. 1861-62, with additions made in either 1882-83 or 1888-89. The architect of 722 Jefferson is unknown, but it is also referred to as the Davis House.

The block bounded by 10th, Washington, 9th and Clay in the Old Oakland district is covered by Swan's Market, historically known as the Oakland Free Market Building. It is an early twentieth century commercial building, built in successive stages from 1917 to 1940. It is distinguished by the glazed bricks and the terra cotta ornaments on the exteriors. Restoration of the building is currently proposed, and it is listed as a primary contributor to the district.

721-723 Washington, Dunn's Block, is a fine three story Italianate office building, currently undergoing restoration. It is brick, richly detailed and a City landmark. 735 Washington Street/509-513 8th Street, the Bowman B. Brown building and annex, a two storied frame building, is also a City landmark. 717-719 Washington, a building listed as a district contributor, the Evers Building, is a two storied frame building with bay windows, cutwork and brackets. It was originally an undertaker's establishment.

Victorian Row is a redevelopment project which has been under construction for seven years. 484-494 9th, the Arlington Hotel, historically named Nicholl Block, was built in 1876 to 1877. It is a richly detailed Italianate brick building with relief carvings and ornaments. It is nearly completely restored to commercial use. The Portland Hotel, historically named Henry House, was built in 1877 to 1878. The architect was William Stokes. 901-933 Broadway, the Delger Block, also called the Lawyer's Block, built in 1880-1881 and 1884-1885 by architects Kenitzer and Mau, is undergoing restoration (see Figure 3.4-1, Plates H, K, L, and M).

The block bound by 9th, Broadway, 8th, and Washington has three landmark buildings. 491-497 Washington, the Snyder Block, now called the La Salle Building, was built in 1877 to 1878 by William Stokes, architect. It is nearly completely restored and the second and third floors are leased to commercial users. 477-487 9th Street, Snyder Block #2, historically named Lloyd Hotel, was built in 1879 by architect William Stokes. 459-475 9th and 821-833 Broadway, the Wilcox Block and Annex, built between 1868 and 1873, are Italianate wood frame buildings. The annex was the main Post Office of Oakland beginning in 1873.

The block bounded by 8th, Broadway, 7th, and Washington has two landmark buildings. 716-724 Washington, the Peniel Mission, historically named Oriental Block, is a well preserved Italianate stick style wood frame building by architect J. Marquis. It was originally a hotel with a bakery at the street level (see Figure 3.4-1, Plate I). The second landmark building, on 7th Street, is the remodeled Broadway depot built in 1874 for the Central Pacific Railway. It now houses a mission style Mexican grocery store, Mi Rancho. 701-715 Broadway, the Delger Block #3, is a contributing building, built in 1863 to 1864 by architects Kenitzer and Mau. It has an interior worthy of restoration.

Design Review Criteria. The Central District Urban Renewal Plan includes an objective to preserve the facades of historically and architecturally valuable structures (that is, to retain as much as possible of the original architectural flavor and style) while adapting the interiors to modern usage, and to ensure the rehabilitation (that is, to correct building deficiencies in keeping with adopted rehabilitation standards) or appropriate new development of other properties in the area.

The Draft Oakland Central District Development Program recognizes the special character of each individual district within the Central District. With this plan, the City is considering a set of policies to enhance the existing assets found throughout the district as well as to provide a guide for future development of the Central District in a way that will increase its attractiveness to business. This program would provide policies on land use, zoning and urban design to help protect and enhance important views, to

minimize the impact of new development on historic or environmentally sensitive areas, to maintain sunlight in plazas along important pedestrian streets and to provide smooth transitions between areas where land uses and/or development intensities differ. These policies would include limits on building heights, building setbacks, and design review.

IMPACTS

Alteration of Site Appearance. The proposed project would alter the visual character of the project site by replacing the existing structures and surface parking areas with new, four story residential/commercial structures designed to "wrap around" a parking structure. Figure 2-4 in Section 2 illustrates the preliminary conceptual design of the proposed project. This design will create an opportunity to develop facades of a texture and scale which relate with the landmark Italianate buildings in the area. The scale of detail could produce a project which would be harmonious with the other rehabilitated structures in the adjacent Victorian Row Project.

The conceptual design shows the residential/commercial structures facing 8th and 9th Streets with the entrance to the parking structure on Clay Street. The parking structure and residential/commercial structures will back up to the rear of the Ratto and Johnson/Durante properties, as shown in Figure 2-4 in Section 2. The impact of the project on the undistingushed architectural rear elevations of the structures on the Ratto and Johnson/Durante properties would be minimal if the design provided adequate light and air.

The project would require the demolition of the Fremont Hotel, which is an historically contributing building to the Old Oakland Historic District, but not a significant building (historically or architecturally) by itself. The loss of the Fremont Hotel would be a potentially significant adverse historical impact since there is a difference in opinion as to the extent of the historic value of the building. The Oakland City Council will determine the extent of significance and need for mitigation prior to consideration of the proposed project. The impact of the project on the remainder of the District would be slight if the project's building height does not substantially exceed that of the older landmark buildings and if the final architectural details relate well to the neighboring structures. The proposed first floor retail commercial uses would maintain a pedestrian scale in the area, which is a significant visual element of the District.

The scale and mass of the proposed project is consistent with visual policies included in the Draft Central District Development Program and the Comprehensive Plan. As discussed in the Existing Setting, the proposed development is subject to design review by the Redevelopment Agency and the City Planning Department.

View Corridors and Opportunities. Views of the project site from neighboring buildings will be enhanced by the project which proposes building facades of architectural integrity similar to the Victorian Row project. No views of unique or scenic resources would be obscured by the project. The project would increase light and glare to adjacent areas due to reflections from windows and light from the residential, commercial, and parking areas. The project lighting would not likely be obtrusive for the project area if the project is designed as proposed with windows at intervals (see Figure 2-4 in Section 2).

Additional view opportunities would be created for future residents of the upper floors of the residential portion of the project.

Design Criteria. The proposed project would not conflict with the objectives and policies of the Central District Urban Renewal Plan and the Draft Central District Development Plan related to design criteria and treatment of historically and architecturally valuable structures.

The Redevelopment Agency will exercise design review authority within the project; namely, no use permitted by the zoning regulations and no construction, remodeling or improvement will be permitted without the prior approval of the Agency. The Agency will evaluate development proposals with respect to social and economic perspectives as well as aesthetics and urban design characteristics. Agency design review will consider at least the following criteria:

1. The location, size, design and operating characteristics of the proposed development with respect to the character of preservation efforts already underway in the vicinity of the project.

2. The scale of the proposed development and the amount of service facilities such as loading and parking which will be required for the project in relationship to surrounding uses.

3. The quality of the pedestrian aspects of the proposal as it relates to existing and proposed surrounding uses.

MITIGATION MEASURES. If the Oakland City Council determines that the loss of the Fremont Hotel would constitue a significant adverse impact, then the following mitigation measures are recommended.

- Document the existence of the Fremont Hotel with photographs and statements from individuals knowledgeable of the structure's history prior to demolition.

- Consider avoiding demolition of the Fremont Hotel. The effects of this mitigation measure are discussed in Section 4, Evaluation of Alternatives.

3.5 AIR QUALITY

EXISTING SETTING

Meteorology. Table 3.5-1 summarizes over 40 years of historical meteorological data for Oakland. The strong seasonal rainfall pattern can be seen in this table; very little rainfall occurs between April and October. This table also shows a seasonal pattern in wind speed and direction. In most months, the wind direction is from the west or west/northwest and speeds are 6 to 10 miles per hour. However, during the period of December to January, wind speeds are lowest and the direction is more variable.

Air Quality Criteria. The applicable air quality criteria for this project are the State of California and Federal ambient air quality standards. Table 3.5-2 depicts Federal and State of California ambient air quality standards.

Attainment Status. The project site is located in the San Francisco Bay Area air basin. The entire air basin is a nonattainment area for ozone. Urban areas within the air basin are nonattainment for carbon monoxide and Santa Clara County is nonattainment for the secondary particulate standard. Nonattainment refers to the fact that the Federal ambient air quality standard is violated in the nonattainment region.

As a nonattainment region, the region must participate in the State Implementation Plan pursuant to the Clean Air Act and amendments thereto. The Bay Area Air Quality Management District (BAAQMD) has prepared a plan to reduce emissions in order to achieve and maintain the ozone and carbon monoxide standards. Attainment of the ozone standard is expected by no later than December 31, 1987, the date of extension granted to the State by the U.S. Environmental Protection Agency.

Air Quality Record. The BAAQMD air quality monitoring stations nearest the project site are in Oakland and Richmond. The Richmond station, located about ten miles north of the project site, monitors ozone, carbon monoxide, nitrogen dioxide, sulphur dioxide, and particulates. The Oakland Station reports data only for ozone and carbon monoxide. Table 3.5-3 shows that for the years 1983 to 1985 neither station detected a violation of standards for any of the pollutants monitored. The standards used at the monitoring stations also are shown in Table 3.5-2.

Air Pollution Sources. The nearest major point source (stationary source) which could affect the air quality at the project site is East Bay Municipal Utility District Water Pollution Control Plant (WPCP) located approximately two miles northwest of the site. Motor vehicles and construction activity are other major local sources of air pollutants. Motor vehicles are considered to be mobile emission sources.

IMPACTS

Construction Impacts. Demolition, earthmoving, hauling, trenching and construction activities would result in localized and temporary increases in the levels of total suspended particulates (TSP), carbon monoxide (CO), hydrocarbons (Hc), and oxides of nitrogen (NOx).

TABLE 3.5-1. SUMMARY OF HISTORICAL METEOROLOGICAL DATA FOR OAKLAND

	MEAN TEMPERATURE	MEAN RAINFALL IN INCHES	WIND SPEED AND DIRECTION (MILES PER HOUR)
JAN	48	3.87	6.6 - SE
FEB	51	3.00	7.2 - W
MAR	54	2.80	8.8 - W
APR	56	1.35	9.5 - W
MAY	59	0.49	10.0 - W
JUNE	62	0.17	9.9 - W
JULY	63	0.01	9.3 - WNW
AUG	64	0.03	9.0 - WNW
SEPT	64	0.19	7.8 - WNW
OCT	61	0.99	6.7 - WNW
NOV	54	2.18	6.3 - WNW
DEC	49	3.43	6.5 - E
ANNUAL	57	18.01	

TABLE 3.5-2. AMBIENT AIR QUALITY STANDARDS

COMPARISON OF FEDERAL AND STATE AIR QUALITY STANDARDS

Pollutant Averaging Time	Federal Standards Primary	 Secondary	State Standard	Objective
Ozone				
1-hour	0.12 ppm 240 $\mu g/m^3$	Same —	0.10 ppm 200 $\mu g/m^3$	To prevent eye irritation, breathing difficulties.
Carbon Monoxide				
8-hour	9 ppm 10 mg/m^3	Same	9.0 ppm 10 mg/m^3	To prevent carboxyhemoglobin levels greater than 2%.
1-hour	35 ppm 40 mg/m^3	Same	20 ppm 23 mg/m^3	
Nitrogen Dioxide				
Annual	0.05 ppm 100 $\mu g/m^3$	Same	—	To prevent health risk and improve visibility.
1-hour	—	—	0.25 ppm 470 $\mu g/m^3$	
Sulfur Dioxide				
Annual	0.03 ppm 80 $\mu g/m^3$	—	—	To prevent increase in respiratory disease, plant damage & odor.
24-hour	0.14 ppm 365 $\mu g/m^3$	—	0.05 ppm 131 $\mu g/m^3$	
3-hour	—	0.5 ppm 1310 $\mu g/m^3$	—	
1-hour	—	—	0.25 ppm 655 $\mu g/m^3$	
Sulfates				
24-hour	—	—	25 $\mu g/m^3$	To improve visibility and prevent health effects.
Particulate				
Annual Mean	75 $\mu g/m^3$	60 $\mu g/m^3$	30 $\mu g/m^3$ PM_{10}*	To improve visibility and prevent health effects.
24-hour average	260 $\mu g/m^3$	150 $\mu g/m^3$	50 $\mu g/m^3$ PM_{10}*	
Visibility Reducing Particles	State Standard: One observation. In sufficient amount to reduce the prevailing visibility to less than ten miles when the relative humidity is less than 70%.			
Lead				
30-day	—	—	1.5 $\mu g/m^3$	To prevent health problems.
Calendar quarter	1.5 $\mu g/m^3$	Same	—	
Hydrogen Sulfide				
1-hour	—	—	0.03 ppm 42 $\mu g/m^3$	To prevent odor problems.
Vinyl Chloride (Chloroethene)				
24-hour	—	—	0.010 ppm 26 $\mu g/m^3$	To prevent health problems
Ethylene				
8-hour	—	—	0.1 ppm	To prevent plant damage.
1-hour	—	—	0.5 ppm	

* PM_{10} = Particulate matter ten microns or less in size.

SOURCE: BAY AREA AIR QUALITY MANAGEMENT DISTRICT, AIR QUALITY HANDBOOK, 1985-1986.

TABLE 3.5-3. VIOLATIONS OF AIR POLLUTION STANDARDS AT MONITORING STATIONS IN THE PROJECT VICINITY, 1983 TO 1985

NUMBER OF DAYS IN VIOLATION OF CURRENT STANDARDS AT MONITORING STATIONS WITHIN THE PROJECT AIR BASIN				
POLLUTANT (CURRENT STANDARDS)	MONITORING STATION	1983	1984	1985
Ozone, 03	Richmond	0	0	0
(12 pphm, 1 hour) F	Oakland	0	0	0
Carbon Monoxide, CO	Richmond	0	0	0
(9 ppm for 8 hours) F, S	Oakland	0	0	0
Nitrogen Dioxide, NO2	Richmond	0	0	0
(25 pphm, 1 hour) S	Oakland	(n)	(n)	(n)
Sulfur Dioxide, SO2	Richmond	0	0	0
(25 pphm for 1 hour) S	Oakland	(n)	(n)	(n)
Total Suspended Particulates, TSP	Richmond	0	0	0
(150 ug/m3, 24 hours) F	Oakland	(n)	(n)	(n)
(60 ug/m3, AGM) F				

(n): not recorded
ug/m3: micrograms per cubic meter
ppm: parts per million
pphm: parts per hundred million
AGM: Annual Geometric Mean
AV: Annual Violation
S: State Standard
F: Federal Standard

Source: California Air Resource Board; Annual Data Summaries. Earth Metrics Incorporated, 1987.

3.7 PUBLIC SERVICES AND UTILITIES

EXISTING SETTING

Police Protection. The existing commercial and residential uses at the project site currently generate a demand for police protection services. Police service to the project area is provided by the City of Oakland Police Department. The department currently maintains a staff of 642 officers. The criminal activities of highest frequency in the project area are commercial and automobile burglaries, purse snatching and strong-arm robbery (muggings). The average response time for an emergency call at the site is two to five minutes (Peoples, 1987).

Fire Protection. The existing commercial and residential uses at the project site currently generate a demand for fire protection services. Fire protection services to the site are provided by the City of Oakland Fire Department. The first station which would respond to an emergency at the site is located at 16th and Grove Streets, approximately one half mile from the site. This station maintains ten firefighters per shift, one fire truck, one engine, and a chief's unit. Emergency response time from this station is approximately three minutes (Nielsen, 1987). Fire hydrants are located on the corners of Washington/8th, Washington/9th, Clay/8th, and Clay/9th. The average pressures for these hydrants is between 50 to 70 pounds per square inch (psi). The average fire flows to the area range between 1,000 to 1,600 gallons per minute (gpm) (Miller, 1987).

Water Supply. The existing commercial and residential uses at the project site currently generate a demand for domestic water. Water service to the project site is provided by the East Bay Municipal Utility District (EBMUD). Existing water service to the site is available from a 30 inch main on 9th Street. Average flows range from 700 to 1,600 gallons per minute at 65 to 75 pounds per square inch. The EBMUD's central pressure zone serves the project with a capacity of approximately 375 million gallons (City of Oakland, 1982; McGowen, 1987).

Wastewater Services. The existing commercial and residential uses at the project site currently generate a demand for wastewater services. EBMUD provides wastewater interception and treatment services for the City of Oakland. The City owns the sewer lines and approves connections for services. Existing average peak wet weather flow for downtown Oakland is approximately 2.3 million gallons per day (City of Oakland, 1983). Existing wastewater flows exceed the hydraulic capacity of the lines between 5 and 15 days per year, depending on inflow and infiltration conditions. Excessive flows occur during wet and dry weather conditions. When these flows occur, raw sewage escapes from the system through vents and is conveyed to Lake Merritt and the Oakland Estuary through stormwater infrastructure (City of Oakland, 1986; Wong, 1987).

Capacity improvements and rehabilitation of the City sewer line infrastructure is planned to increase capacity and reduce inflow and infiltration. The EBMUD infrastructure requires similar improvements to accommodate future flows downstream of the project site. Design alternatives are currently under review. The required infrastructure is not expected to be operational until sometime after 1990 because of funding, administrative and infrastructure constraints (City of Oakland, 1986; Wong, 1987).

The EBMUD wastewater treatment plant has the design capacity to treat approximately 120 million gallons of sewage per day. The treatment plant currently operates below capacity during dry weather flow periods (75 to 80 mgd). However, wet weather flows exceed the capacity. Untreated wastewater is allowed to reach the bay when flows exceed capacity. The district requires additional treatment capacity and is in the implementation stage for a project to control wet weather overflows through a system of increased capacity and remote treatment facilities (City of Oakland, 1987; Deimer, 1987).

Public Schools. The existing residential uses at the project site currently generate a demand for educational services. The project site is located within the boundaries of the Oakland Unified School District. Lincoln Elementary School, Westlake Junior High School, and Oakland Technical High School all serve students living in the project area.

Lincoln Elementary School, with an enrollment of 631 students, is currently operating above its capacity of 580 students. Presently the problem is not severe enough to warrant a year round school program. Westlake Junior High has an enrollment of 822 students and a capacity of 1,080. Oakland Technical High School has an enrollment of 1,449 and a capacity of 2,100. Both Westlake Junior High and Oakland Technical High are operating below capacity and have adequate facilities to meet current needs (Williams, 1987).

Parks and Recreation. The existing residential uses at the project site currently generate a demand for park and recreation services. Parks serving the project area include the Lincoln Neighborhood Center at Eleventh and Harrison Streets, Harrison Railroad Park (Seventh and Harrison Streets), Jefferson Square (Seventh and Grove Streets), Madison Square (Ninth and Jackson Streets), Lafayette Square (Tenth and Grove Streets), and the Lake Merritt recreational area. Most of these parks are approximately one block in size. The closest playground exists at the Lincoln Neighborhood Center and the largest open recreational area is around Lake Merritt (City of Oakland, 1985; Meneos, 1987).

Natural Gas and Electricity. The existing commercial and residential uses at the project site currently generate a demand for natural gas and electricity. Natural gas and electricity are provided to the project area by the East Bay Division of the Pacific Gas and Electric Company (PG&E). Electricity is generated by a combination of hydroelectric, thermal, geothermal, wind turbine, and solar generating sources (Forsman, 1987). Natural gas is supplied from sources in California, Texas, and Canada.

Electricity to the project site is distributed through PG&E's Substation C, located at 2nd and Grove Streets. The substation capacity is 180 megawatts. Current peak demand within the substation's service area is about 100 megawatts. The closest supply lines to the project site are located along the C 1133 12 KV underground circuit at the intersection of 8th and Washington Streets (City of Oakland, 1982; Lyon, 1987).

Solid Waste Disposal. The existing commercial and residential uses at the project site currently generate a demand for solid waste disposal services. Solid waste collection and disposal services to the project site are provided by the Oakland Scavenger Company. Nonhazardous waste is hauled to a landfill

located approximately 40 miles from the project site near Altamont in Alameda County. The landfill has an estimated capacity sufficient to last 40 to 50 years (Crosetti, 1987).

IMPACTS

Police Protection. The proposed project is expected to create an increase in the demand for police services at the project site. The parking structure would generate an increase in automobile burglaries. The retail stores are likely to increase the incidents of shoplifting, purse snatching and strong arm robbery. The parking structure also has the potential for generating other crimes such as loitering, rape, vandalism, public drinking, unauthorized parking, and traffic violations and accidents. The project could be served with the present level of personnel and equipment. Cumulative development in Oakland, however, could eventually require an expansion of staff and equipment (Peoples, 1987).

Fire Protection. The proposed project would increase the demand for fire protection services. However, the project alone would not create any special problem for the Oakland Fire Department if proper fire protection measures are adopted. The project could be served with the present level of personnel and equipment. Cumulative development in Oakland, however, could eventually require an expansion of staff and equipment (Nielson, 1987).

Water Supply. Development of the proposed project would require approximately 27,150 gallons per day (gpd). This is based on a consumption rate for the proposed project of 60 gpd per 1,000 square feet of commercial space and 150 gallons per day per resident at 2.5 residents per dwelling unit (City of Oakland, 1982; Earth Metrics Incorporated, 1987). BBMUD estimates that it has adequate water supplies and infrastructure to meet project demands (McKray, 1987).

Wastewater Services. The proposed project would generate approximately 24,435 gallons per day (gpd) of wastewater assuming that 90 percent of the expected water consumption becomes wastewater (City of Oakland, 1982; Earth Metrics, 1987). The projected net increase in sewage flow generated by the proposed project may add to existing wet weather capacity inadequacies in the City's downstream sewage conveyance system. The project's incremental impact would be considered significant but temporary because it would increase the frequency and/or volume of untreated release of wastewater into storm drainage facilities, including Lake Merritt and the Oakland Estuary, until planned improvements are installed. Planned improvements required to convey future wastewater volumes in the project area will increase capacity to adequate levels, but will not be operational until sometime after 1990.

The project generated wastewater would also contribute to capacity inadequacies at the treatment plant during wet weather flows until improvements are complete. However, the incremental increase associated with the project would not significantly affect the general capacity levels at the plant (City of Oakland, 1986; Deimer, 1987).

Public Schools. Using California Department of Education students/residence generation factors, the proposed project would generate approximately 49 students: 28 in grades K-6, 7 in grades 7-8, and 14 in grades 9-12 (Williams,

1987b). Impacts on school facilities would vary by grade level. Although the elementary school serving the project site is currently operating over capacity and the junior high and high schools have sufficient capacity to accommodate the project at this time, this situation may worsen or improve by 1992, the projected occupancy year of the project. The Oakland School District does not have school occupancy projections for the year 1992.

If capacity problems occur at these schools in the future, the District could accommodate the additional students by altering school boundaries, operating year round and using portable classrooms. Additionally, the District is considering construction of a new elementary school in the Lincoln Elementary School attendance area. This new school, if constructed, would not likely open before the year 1994 (Winefield, 1987).

Parks and Recreation. Primary impacts to the existing parks system would occur as a result of the recreational needs of children living within the development. It can be anticipated that these children will seek outdoor play areas. Since the proposed project does not supply on site recreational areas, it is likely that the children will travel off site in order to play. The close proximity of most of the parks should afford the school age children sufficient areas for outdoor play. The Lincoln Neighborhood Center will most likely be the primary area used by the preschool children. Its location is closest to the site and therefore reduces the number of streets to cross in order to arrive at the park. This park is adjacent to Lincoln Elementary School (City of Oakland, 1985).

Some secondary impacts to the surrounding parks could be anticipated to occur as a result of the retail workers as well as the adult residential population. Since it is likely that the adult residential population will be working adults, impacts from the working group would be primarily during the lunch period (City of Oakland, 1985).

Natural Gas and Electricity. The project would generate an annual direct demand of 860,500 kilowatts of electricity and 77,500 therms of natural gas per year. The electrical demand would be approximately 423,000 kilowatt hours annually for the commercial uses and the parking structure, and approximately 437,500 kilowatt hours annually for the 70 residential units. Natural gas demand would be approximately 7,500 therms annually for the commercial uses and approximately 70,000 therms for the residential uses (Nelson, 1987; Earth Metrics, Incorporated, 1987).

These figures are based on generation rates of 6,250 kilowatt hours of electricity and 1,000 therms of natural gas per residential unit per year; 20 kilowatt hours of electricity and 0.5 therms of natural gas per square foot of retail space per year; and 0.876 kilowatt hours per square foot per year for the estimated 140,400 square foot parking structure (City of Oakland, 1982; Nielson, 1987). Based on these generation rates, PG&E anticipates being able to serve the energy demands of the proposed project (Monroe, 1987).

Solid Waste Disposal. The project would not significantly increase the demand for solid waste disposal services. The Oakland Scavenger Company anticipates no problems in providing collection and disposal services to the proposed project. The existing landfill near Altamont has adequate capacity for solid wastes generated by the proposed project (Gosetti, 1987).

Public Revenues. The proposed project would generate approximately $93,754 in gross public revenues in the form of development fees, property taxes, rental receipt taxes, sales taxes, and utility and sewer taxes.

DEVELOPMENT FEES. Because a developer has not yet been selected, these one time development fees are not yet known and therefore cannot be included within the revenue totals.

PROPERTY TAXES. Current property taxes generated by the project site total $7,479 (one percent of $747,871 of nonexempt assessed value). This amount would be higher but the Salvation Army, a nonprofit agency, is exempt from paying property taxes. With demolition of the existing improvements and construction of the proposed project, the property taxes generated by the project site at buildout would total $53,008. This assumes a future assessed valuation of $5,300,790 for the residential and retail portions of the project (land and improvements), assuming construction costs at $60 per square foot for 15,000 square feet of retail, 45,000 square feet of residential (three times the floor area of the retail) and $20,000 each for the 70 residential parking spaces (City of Oakland, 1985). The property value of the remainder of the proposed parking structure would be exempt from property taxes as the structure would be owned by the Redevelopment Agency. Since there is no parking requirement for commercial uses in the C-52 Zone, parking used by commercial customers and employees will be exempt from property taxes. The net increase in property tax revenues for the project site ($45,529) would be placed in the redevelopment fund for use within the redevelopment area.

GROSS RENTAL RECEIPTS TAX. This tax is paid to the City from all commercial rental property at the annual rate of $13.95 for each thousand dollars of gross receipts. Newly constructed buildings qualify for a five year exemption and pay $1.80 per thousand dollars for the first five years. Using an average annual rent for new building in downtown Oakland of $22 per square foot and an 85 percent usable floor space factor, the 15,000 gross square feet of retail use in the project would generate $3,913 in gross receipts tax.

RENTAL SALES LICENCE TAX. Sales in the proposed retail area of the project are also taxed under the City's Business License Tax Structure at a rate of $1.20 per $1,000 of sales. There are no specific stores or restaurants now proposed for the 15,000 square feet of new retail space proposed. A study for the Oakland Office of Economic Development and Employment (OEDE) on future retail opportunities indicated a need for annual sales of between $125 to $200 per square foot for a retailer to be economically viable (City of Oakland, 1985). Using the high end of $200 per square foot within this range, the proposed retail area could create approximately $3,000,500 per year in sales. The tax on this sales amount would be $3,600.

SALES TAX REVENUES. The sales tax rate for taxable retail sales is 6.5 cents per dollar. The City of Oakland receives 0.0095 cents per dollar of this total sales tax rate. Using the same sales assumptions as were made in the Retail Sales License Tax section, it is estimated that Oakland would receive $28,500 annually in sales tax revenues in 1992. Additional sales tax revenue would be generated by the new residents of the site who would make taxable purchases elsewhere in the City.

UTILITY USER TAX. The City of Oakland also receives a utility user tax based on 5.5 percent of the electricity, gas, and intrastate telephone bills. The projected utility user tax for the proposed project in 1992 would be $3,737, based on the following use and cost assumptions: retail - 300,000 KWH of electricity at $.085 per KWH, 7,500 therms of natural gas at $.5648 per therm, and 45 employees at $360/year for telephone; residential - $300/year per unit for telephone (City of Oakland, 1985).

SEWER SERVICE CHARGE. The City of Oakland has a sewer service charge based on annual sewage generation. The project would generate 1,195,116 cubic feet of sewage annually. For that quantity, the sewer service charge rate would be $0.0833 per 100 cubic feet. The annual sewer service charge from the project would be $996.

MITIGATION MEASURES

- The final project's design should include accepted crime prevention measures and standards applicable for the proposed uses.

- The parking structure should include a security patrol/access control system capable of mitigating the likelihood of parking structure related crimes.

- Final project plans should be reviewed by the Oakland Police Department for security design review.

- The parking structure should be well ventilated to reduce the risk of smoke from a vehicle fire accumulating within the structure.

- Fire walls/separations between residential uses and the parking structure should be included in the project's final design.

- Further development/redevelopment in the area should avoid blocking off streets or otherwise limiting traffic access to the area by Fire Department vehicles.

- The proposed project should be equipped with automatic fire alarms, automatic sprinklers, and smoke detectors.

- Fire hydrants should be located and designed pursuant to code requirements.

- Fire flow calculations should be performed after final design to verify adequate water delivery of the proposed structure.

- Water conservation fixtures should be installed in toilets, showerheads, washing machines and sink faucets to minimize domestic water demand and wastewater generating.

- A plan should be developed in coordination with the Oakland Unified School District to accommodate the additional students the project is expected to generate.

- Implement the mitigation measures recommended in Section 3.10, Energy, to reduce energy consumption.

3.8 GEOLOGY

EXISTING SETTING

Subsurface Soils. The project site is underlain by up to 1,000 feet of sediments resting on bedrock of the Franciscan Assemblage, which consists of hard sandstone with large boulders of a variety of volcanic, metamorphic, and sedimentary rocks. The Franciscan Assemblage was at the ground surface about two million years ago, but has been subjected to tilting and faulting which created San Francisco Bay and the ridges along the East Bay. Weathered rock material from the newly formed ridges became sediments which, along with clays and silts being carried into the Bay from the Delta, washed down and buried the Franciscan Assemblage.

A geotechnical engineering investigation was recently conducted in an area several blocks from the project site. These findings are applicable to subsurface conditions at the project site. At depths ranging from 75 to 101.5 feet, hard silty clays possibly from the Older Alameda Formation were encountered; these sediments have a relatively high plasticity. On top of the Older Alameda Formation is the Recent Alameda Formation in various thicknesses, generally occurring in depths of 30 to 75 feet; these sediments consist of alternating marine and terrestrial, very dense silty to clayey sands and very stiff to hard silty clays. Atop the Recent Alameda Formation is 40 feet of the Merritt Sand Formation, which generally consists of dense to very dense fine to medium grained sand containing various amounts of silt and clay. These deposits were formed as wind blown sand dunes along the shore of the Bay. Later, a thin soil cover developed that permitted the growth of trees and grasses. On the site, fill material has been placed on top of the sand and varies in thickness from a few feet to 16.5 feet and is generally poorly to moderately compacted (City of Oakland, 1982).

Seismicity. The project site is located in the seismically active San Francisco Bay region. Figure 3.8-1 is a regional fault map showing locations of major active and potentially active faults in the bay region and their relationships to the project site. There are no known active faults traversing the site. Distances of major active faults from the project site along with estimates of maximum anticipated earthquakes for these faults based on recent studies are given in Table 3.8-1. The project site is not in a special study zone as defined by the State of California.

All of the faults listed in Table 3.8-1 have generated at least locally damaging earthquakes during historic times. Most other faults shown in Figure 3.8-1 show evidence of Quaternary movements although significant historical earthquakes have not been clearly associated with them. It should be noted that, as evidenced by the M=5.3 Mt. Lewis earthquake on March 31, 1986, other potentially active faults may exist in the Bay region and be future sources of strong ground motion.

Examination of data included in Table 3.8-1 indicates that the most probable earthquake hazard that may affect the project site is very strong to violent ground shaking during a major earthquake on the San Andreas or Hayward Faults. Major earthquakes on other bay region faults could cause moderate to strong ground motions at the project site but it is believed that these motions will not exceed those which may be generated by the Hayward and San Andreas Faults.

TABLE 3.8-1. MAJOR ACTIVE BAY REGION FAULTS

FAULT	DISTANCE (MILES)	DIRECTION	MAXIMUM EARTHQUAKE
San Andreas	15	SW	8.3
Hayward	3	NE	7±0.25
Concord	12	NE	6.3
Calaveras	13.5	NE	7±0.25
Greenville	20	NE	6.6±0.2

Source: Earth Metrics Incorporated, 1987.

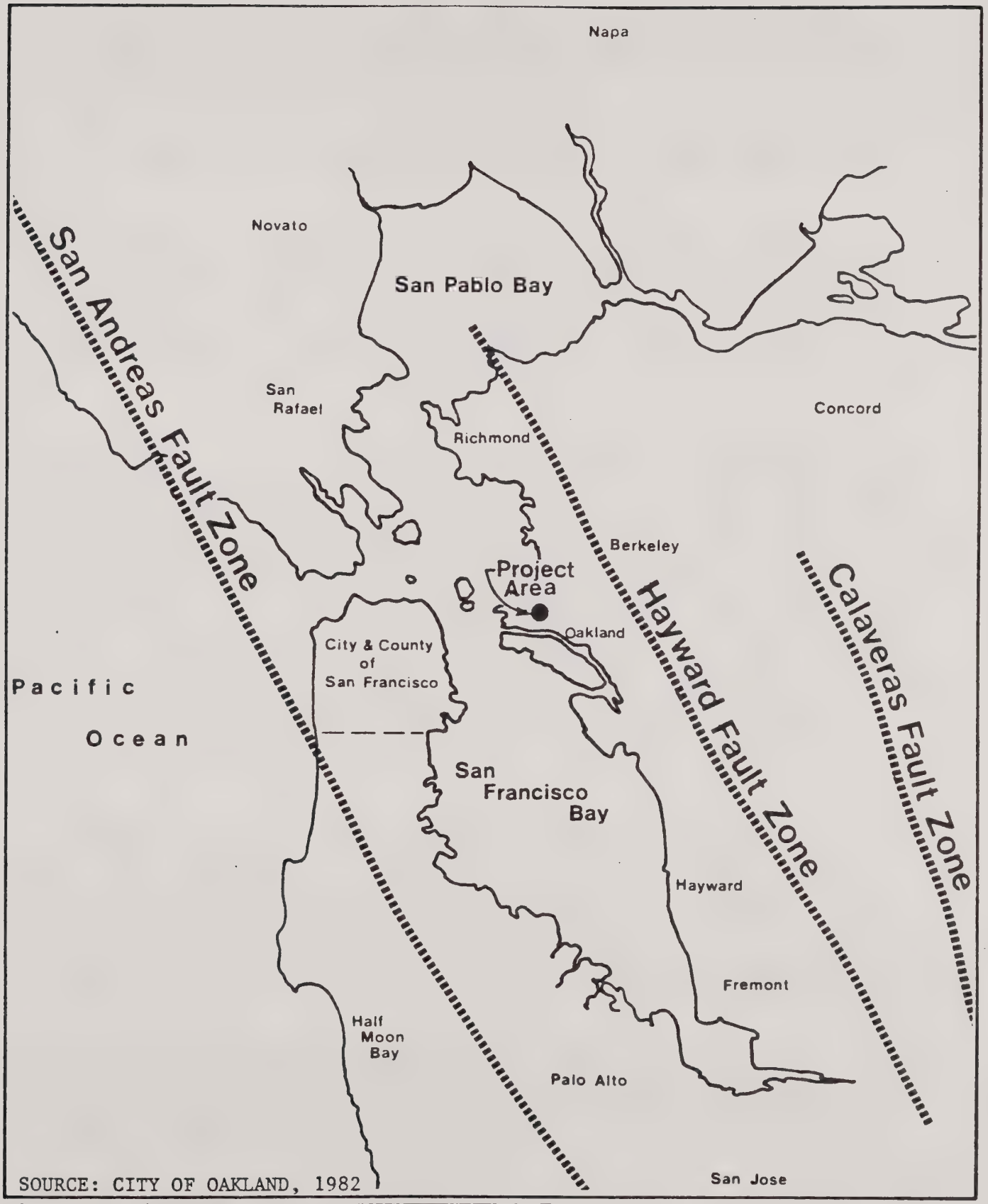
It is estimated that in the event of a maximum credible earthquake, the site would experience ground acceleration on the order of 0.5g. This preliminary estimate is based on the location of faults, the behavior of the faults, and the maximum credible event for each fault.

The potential for liquefaction at the project site is low. Liquefaction involves a sudden loss in strength of a saturated cohesionless soil (predominantly fine grained sand) which is caused by shock or strain (such as an earthquake), and results in temporary transformation of the soil to a fluid mass.

Seismic Safety Element Policies. Development proposed within the City of Oakland must be consistent with the policies and proposals of the City's Seismic Safety Element of the Comprehensive Plan design for protection from geologic hazards. Oakland's concern for seismic safety needs to encompass all new construction, existing structures which may be potentially hazardous, and an overall land use strategy which consistently deals with seismic hazards on a comprehensive basis. The following City of Oakland's Seismic Safety Element policies are applicable to the proposed project:

- The City, in conjunction with other governmental agencies, should embark on a program of disseminating available seismic safety information to citizens and property owners.

- The City will employ the most current seismic design criteria in the construction of new public buildings. Buildings to accommodate activities and equipment related to public safety, especially police, fire, and communication services, should be constructed to ensure continued operation and availability of service after an earthquake.



earth metrics

N

SCALE
1" = 8 MILES

FIGURE 3.8-1. ACTIVE FAULT ZONES IN THE SAN FRANCISCO BAY AREA

- The City should consider establishing a program to have structures highly susceptible to seismic damage either reinforced or demolished. Priority for abatement action should be based on the type of occupancy and the severity of risk.

- The City should maintain an ongoing program to monitor and refine data on both geologic and seismic hazards (City of Oakland, 1980).

IMPACTS

Subsurface Soils. Construction of the proposed structure will create large loads for site soil materials. These loads include the weight of the structure and lateral forces resulting from the wind and seismic forces (see the Seismic Hazards discussion). The project site soils should have sufficient strength to support the planned project. The estimated net settlement of the structure on the recommended foundations is expected to be small.

Seismic Hazards. The geologic setting of the project site poses seismic hazards similar to those in other seismically active areas throughout California. The primary potential seismic hazard to the proposed development is ground shaking. There is a high probability that the project area would experience ground shaking during the design life of the project structures. Ground shaking may result in amplified seismic waves within the structure or differential settlement. The factors could result in damage to buildings, paving, and utilities. Seismically induced landsliding is not regarded as a potential hazard. The intensity of ground shaking at the project site would depend on a combination of the type of fault, the distance to the earthquake epicenter, the magnitude of the earthquake, the types of materials between the fault and the site, and the properties and thickness of the foundation materials at the project site. Standard construction practices and the recommended mitigation measures would reduce this impact to insignificant levels.

The potential for liquefaction, a process by which water saturated, cohesionless soils lose strength and become liquid during earthquake induced ground shaking, is present at the site. However, this potential is low. Differential compaction and settlement, which normally occurs in loose, unconsolidated sandy soils during ground shaking, is also possible. Proper foundation design could mitigate this potential hazard. The potential for ground rupture (which usually occurs along lines of previous faulting) is very low since no known active or potentially active faults are identified on the project site.

Consistency with Seismic Safety Element Policies. With adoption and utilization of appropriate engineering design and construction methods, in conjunction with the completion of site geologic engineering studies, the proposed development would be consistent with the Seismic Safety Element policies of the City of Oakland.

MITIGATION MEASURES. The following mitigation measures are recommended to reduce the potential seismic impacts to the project:

- A detailed geotechnical site study, including geologic and soil engineering analysis, should be conducted to better evaluate development risk and to design measures to mitigate that risk.

- Building design should comply with seismic requirements of the current Uniform Building Code and Seismic Safety Element of the Oakland Comprehensive Plan.

- Design foundation supports for project structures to withstand the effects of ground shaking and differential settlement.

- Design utilities to provide sufficient flexibility to withstand the ground motion induced during an earthquake.

- Additional specific engineering recommendations as proposed by the geotechnical engineers should be incorporated into the final designs of the proposed development.

3.9 HYDROLOGY

EXISTING SETTING

Drainage. Drainage in project area is heavily influenced by the existing urban development and infrastructure. Much of this area is urbanized; therefore, the ground is impervious to rainfall. Most runoff on the project site flows across parking areas and sidewalks to street curbs and gutters, eventually reaching to San Francisco Bay.

Flooding. The project site is not located within the 100 year floodplain.

Groundwater. The project site is not located over or immediately adjacent to any known major groundwater aquifers or recharge areas. The groundwater table beneath the project site is 14 to 18 feet below the ground surface (City of Oakland, 1983). These near surface deposits do not comprise a significant groundwater resource.

Surface Water Quality. Specific water quality data are not available for surface waters of the project area. The surface waters of the project area probably have varying amounts of naturally occurring and human generated pollutants. Natural pollutants include sediments, organic materials, and nitrates. While these pollutants are found as naturally occurring components of stream waters, the development of an urban environment can result in highly elevated levels of these and other contaminants. Many of the pollutants associated with an urban environment are a result of vehicular activity and include lead, zinc, copper, hydrocarbons, and petroleum products.

IMPACTS

Drainage. Drainage at the project site would remain essentially the same following construction of the proposed project. The proposed project would not alter the current drainage pattern in the vicinity.

Runoff. The project site is nearly impervious to rainfall at present, so there would not be any appreciable increase in net storm water runoff from the site as a result of project construction.

Erosion/Sedimentation. Due to the nearly level terrain of the project area, the potential for erosion and sedimentation is low for the proposed project. During construction, however, when soils are exposed, some localized erosion could occur due to wind action in the summer and sheet erosion during winter rains. Trenches dug for underground utility improvements could be subject to instability if construction occurs during the rainy season.

Flooding. No significant impact would be anticipated with respect to flooding in the project area since no appreciable increase in stormwater runoff is expected. The project site is not located in the 100 year flood zone and is not susceptible to the 100 year flood event.

Water Quality. The proposed project would not introduce any new pollutants that are not already present in the drainage system. The project would result in relatively minor increases in urban pollutants in runoff resulting from increased vehicular traffic associated mainly with the parking structure

(hydrocarbons, heavy metals) and possible application of pesticides and fertilizers for landscaping. Specific effects of small increases of urban pollutants cannot be forecast, but no significant impacts are likely.

MITIGATION MEASURES. The following mitigation measures are recommended although no significant impacts to project area hydrology are expected.

- The on site storm drainage system should be designed in accordance with City standards to accommodate quantities of runoff expected to be generated from buildout of the project.

- Landscaped areas of the project site should be designed to absorb runoff from roofs and walkways.

- Necessary surface and subsurface drainage systems to adequately handle storm runoff should be provided within the project site.

- To avoid the potential for soil erosion during construction and decrease the likelihood of trench stability problems, earthwork operations should be performed during the dry weather season, where possible.

- A regular pavement cleaning program should be implemented to clean on site parking areas of litter, gasoline and oil spills to reduce urban runoff contaminants.

- The development should be landscaped, to the extent possible, with vegetation requiring minimum maintenance or application of fertilizers and pesticides.

3.10 ENERGY

EXISTING SETTING. The energy setting of California and the nation in general is a critical one of increasingly higher energy costs and depleting nonrenewable energy sources. The energy problem is compounded by the trend of recent years of increasing demand for energy resources, which has abated somewhat since 1979. State and Federal policies seek resolution through energy conservation and development of energy sources. The degree of success of this strategy depends on coordinating local and regional policies, and fostering public awareness.

The Warren/Alquist State Energy Resources Conservation and Development Act (1974) created the California Energy Resources Conservation and Development Commission (CERCDC). The State energy conservation action plan was prepared by CERCDC, under provisions of the Energy Policy and Conservation Act (PL 94-163) and the Energy Conservation and Production Act (PL 94-385). Energy conservation standards for new nonresidential buildings were adopted by CERCDC on June 30, 1977, and reinforced by local building departments through the existing building permit process. The energy conservation standards for new nonresidential and residential buildings have been placed in Title 24, Part 6, Division T-10, Chapter 2, Subchapter 4 of the California Administrative Code.

The standards are intended to provide energy savings through the design of the component parts of buildings and building envelopes. The envelopes must have good thermal resistance and low air leakage. Mechanical and electrical systems providing heating, cooling, lighting, and hot water must use a minimum amount of energy. Compliance with the standards necessitates various indicated calculations and the completion of special compliance forms. State energy policies also include measures to reduce regional vehicle miles of travel by automobiles, and thus gasoline consumption.

The proposed project site is within the service area of Pacific Gas and Electric Company (PG&E), a public utility which supplies gas and electricity. PG&E obtains electric power from a variety of renewable and nonrenewable resources. PG&E plans to meet future increased demands of electric power by expanding its use of fossil fuels and thermal fuels.

Energy use at the project site is associated with the operation of existing uses on the site, including a restaurant, a meat distributor, a residential hotel, two sewing shops, and the Salvation Army operations. Motor vehicle use to and from the site is the most significant use of energy related to the project site.

IMPACTS. The proposed parking structure, residential and commercial uses of the site would result in consumption of energy resources due to construction and operation of these proposed uses, and additional motor vehicle travel associated with the new dwelling units and commercial uses.

Construction. Energy consumption would occur during demolition and project construction from the use of earthmoving and grading vehicles, electric and pneumatic tools, and various other demolition and construction equipment. Commuting of construction works and hauling of demolition construction materials would result in additional consumption of energy. Construction energy consumption would be temporary and the impact to local and regional energy resources would be considered insignificant.

Operation. The operational energy needs of the proposed residential and commercial uses would be supplied by the Pacific Gas and Electric Company. The daily energy needs of the proposed buildings would involve lighting, air conditioning, space heating and water heating. Energy consumption must meet the minimum requirements set by the State of California standards. As previously calculated in Section 3.7, Public Services and Utilities, energy consumption by the proposed project is estimated to be 860,500 kilowatt hours of electricity per year, and 77,500 therms of natural gas per year. Operational energy consumption would not be considered unusual or wasteful.

Motor Vehicle Traffic. The residential and commercial uses of the project would generate an estimated 699 average daily motor vehicle trips which would involve the consumption of gasoline. However, because the development on the site would be considered infill and the residences would be conducive to utilization of mass transit, the number of vehicle miles traveled would be relatively low compared to lower density residential uses beyond existing urban boundaries. The average daily consumption for motor vehicles generated by the residential and commercial uses of the project would be approximately 350 gallons of gasoline per day, assuming an average consumption rate of 20 gallons per mile and an average trip length of 10 miles per day.

MITIGATION MEASURES. The following measures are recommended to reduce energy consumption.

Construction

- Minimize idling time and unnecessary transport of construction equipment. In addition, maintain and tune all equipment.

- Utilize local sources of infrastructure materials when feasible, in order to minimize transportation energy.

Lighting, Heating, Air Conditioning and Ventilation

- Install time clocks or photocells adjusted to control outdoor lighting.

- Use sodium vapor or other low energy outdoor lighting together with photoelectric cells.

- Locate water heaters as closely as possible to the demand locations.

- Require an efficient heating, ventilation and air conditioning system consistent with applicable state and local codes.

Motor Vehicle Travel

- Residents and patrons of the proposed project should be informed of the availability of public transit to decrease motor vehicle use to and from the site.

4. EVALUATION OF ALTERNATIVES

4.1 DESCRIPTION OF ALTERNATIVES

An analysis of reasonable alternatives to the proposed project is presented in this section, focusing on general evaluations conducted for comparison with the proposed project. No site plans have been developed for these alternatives. This section presents the likely environmental effects of the following alternatives: No Project, Alternate Site, and Parking Structure Only.

NO PROJECT. This alternative assumes that development as proposed would not occur on the project site at the present time. The site would retain its existing character of parking and commercial/residential uses.

ALTERNATE SITE. This alternative assumes that development as proposed would occur at a location other than the proposed site. No specific, feasible, alternate sites have been identified, so the evaluation of this alternative applies generally to the entire southwest area of the Oakland Central District.

PARKING STRUCTURE ONLY. This alternative assumes that only a parking structure is constructed on the project site. The purpose of this alternative would be to provide parking in the project area, but avoid demolition of the Fremont Hotel building.

4.2 EFFECTS OF ALTERNATIVES

NO PROJECT. This alternative would avoid the proposed project's dislocation of existing occupants of the hotel and commercial establishments on site, the demolition of the Fremont Hotel public service demand increases, and the temporary air quality and noise impacts associated with demolition and construction.

This alternative also would not produce the beneficial impacts of the proposed project: an increase in the supply and quality of housing on site, an increase in the supply of parking, and an improvement in the compatibility of the design project site structures with adjacent landmark buildings and rehabilitated structures.

ALTERNATIVE SITE. Development of the project on an alternate site would avoid the site specific impacts of the proposed project (dislocation of existing residential and commercial occupants and demolition of the Fremont Hotel). However, an alternate site in the southwest area of the Oakland Central District is likely to have its own occupants who would have to be displaced, since few of the blocks in the area are undeveloped. Some of the blocks only contain parking lots, which could be built upon. Construction of the project on such sites would produce a short term loss of a major parking resource during construction and a smaller net addition of new parking spaces for the area, as compared to the proposed project. The public service and construction related air quality and noise impacts would occur regardless of the location of the project site. The benefits of the project at an alternate site would be comparable to the project at the proposed site, although the alternate site may not be as suitable as the proposed site for providing convenient parking for other area developments.

PARKING STRUCTURE ONLY. This alternative would avoid demolition of the Fremont Hotel, but would still involve dislocation of the other site occupants. The public service impacts of the project would be minimized. Construction related air quality and noise impacts would occur regardless.

This alternative would provide the same parking benefits as the proposed project. This alternative, however, would not meet all of the objectives of the proposed project, such as the provision of residential and commercial uses and compatibility of development design with the architecture of the Victorian Row Project. The housing benefits would not be realized and a net loss in housing and commercial space could result if replacement structures are not built elsewhere. The ability of this alternative to equal the development design benefits of the proposed project would depend on whether a parking structure alone could be designed to be compatible with adjacent structures without the proposed residential and commercial elements.

5. SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

Section 3 of this Environmental Impact Report identifies the environmental effects of the proposed project. Table 1-1 summarizes these impacts and clarifies the significance of each impact with and without implementation of the recommended mitigation measures. In all cases, the recommended mitigation measures can be incorporated into the project to minimize impacts to insignificant levels.

6. GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

A project is generally considered to be growth inducing if it could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth. Increases in the population may further tax existing community service facilities, so consideration must be given to this impact. The characteristics of the proposed project which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively, also must be discussed.

Growth is often induced through one or more of the following actions: extending urban services into a previously unserved area, extending a major roadway into a previously unserved area, increasing the parking supply, or establishing major new employment or housing opportunities.

SERVICES. The proposed project would not require the extension of water, sewer, storm drainage, or other public services beyond the project site.

ROADS. Only driveway access to the project site would be constructed.

PARKING. The project would add up to 500 new parking spaces to the project area. Of these spaces, approximately 70 spaces would be used by the proposed project residents. The remaining spaces would be short and long term spaces serving the proposed project commercial uses and helping to meet the existing and projected shortfall in parking supply in the area.

EMPLOYMENT. The proposed project would generate short term construction jobs and long term management sales and service jobs. These jobs are expected to be filled by persons already residing within reasonable commuting distance of the project site. The project would produce a slight net increase in employment at the project site since about 50 jobs would be displaced from the site. These jobs may be relocated elsewhere in Oakland. See Section 3.2, Economics, Population, Housing, and Employment, for further information about the project's job creation and housing demand impacts.

Secondary commercial growth induced by the proposed project would most probably be oriented to providing goods and services to new employees, businesses, and residents of the site. These goods and services are already available throughout the area.

HOUSING. The proposed project would induce growth by directly fostering population growth and by encouraging more intense development in the project vicinity. The project would add up to 70 new dwelling units to the City, which could accommodate approximately 175 persons. This increase would not be considered significant especially since about 33 existing residential units and about 100 persons would be displaced due to the project. These residents, however, may be relocated elsewhere in Oakland. Pressure for more intense development in the project vicinity may occur with or without the proposed project, given the number of other projects proposed for the project area. The proposed project would not remove any obstacles to further population growth. See Section 3.2, Population, Housing, and Employment, for further information about the project's population and housing impacts.

7. EVALUATION OF CUMULATIVE IMPACTS

Table 7-1 presents a list of pending and approved, but unoccupied development projects in the vicinity of the proposed project which are included in the evaluation of cumulative impacts in this report. Figure 7-1 shows the locations of these projects.

Table 7-2 presents a quantitative summary of indicator cumulative impacts of the approved, proposed, and pending projects. While the proposed project would contribute cumulatively to an increase in daily and peak hour traffic volumes and an increase in demand for public services, these cumulative impacts would not be considered significant due to the relatively small size of the project and the recommended mitigation measures.

TABLE 7-1. DEVELOPMENT PROJECTS INCLUDED IN THE CUMULATIVE IMPACT ANALYSIS

DEVELOPMENT/ADDRESS/STATUS	SIZE/USE
1. Lake Point Towers Madison and 17th Street Approved	158 Units/Residential 300 Units/Senior Residential 308 private parking spaces
2. Victorian Row 9th Street and Broadway Approved	150,000 GSF/Office 150,000 GSF/Retail
3. Trans Pacific Center - 1 Broadway and 10th Street Approved	232,500 GSF/Office 78,700 GSF/Retail 356 parking spaces
4. The Rotunda Broadway and San Pablo Avenue Approved	250,000 GSF/Office 125,000 GSF/Retail
5. Jack London Square + Phase I Broadway and 1st Street Approved	200,000 GSF/Office 140,000 GSF/Retail 300 Rooms/Hotel 1,500 parking spaces
6. Kaiser Center - Phase I Grand and Harrison Approved	980,000 GSF/Office 31,300 GSF/Retail
7. Oakland City Center OB III, OB IV Approved	360,000 GSF/Office 100 parking spaces
8. Kaiser Center - Phases II, III, & IV 20th and Harrison Streets Approved	3,080,000 GSF/Office 190,000 GSF/Retail 2,020 parking spaces
9. Hotel Two 14th and Washington Streets Approved	300 Rooms/Hotel 17,425 GSF/Retail 500 parking spaces
10. Oakland City Center 12th and Washington Streets Approved	3,673,000 GSF/Office 123,000 GSF/Retail 600 Units/Residential 3,500 parking spaces

(CONTINUED)

TABLE 7-1 (CONTINUED). DEVELOPMENT PROJECTS INCLUDED IN THE CUMULATIVE IMPACT ANALYSIS

DEVELOPMENT/ADDRESS/STATUS	SIZE/USE
11. Chinatown Redevelopment 9th and Franklin Streets Approved	600,000 GSF/Office 150,000 GSF/Retail 250 Units/Residential 24,000 GSF/Cultural Center 60,000 GSF/Open Space 1,800 parking spaces
12. Federal GSA Building 12th and Clay Streets Pending	1,200,000 GSF/Office 840 parking spaces
13. Albert Fong 8th and Franklin Streets Pending	15,000 GSF/Retail 40 Units/Residential
14. Oakland Retail Mixed Use Center 20th and Telegraph Pending	900,000 GSF/Office 700,000 GSF/Retail 3,500 parking spaces
15. 21st and Broadway Pending	469,225 GSF/Office 9,300 GSF/Retail 545 parking spaces
16. Cadillac Fairview 19th and Webster Streets Pending	380,000 GSF/Office 10,000 GSF/Retail 210 parking spaces

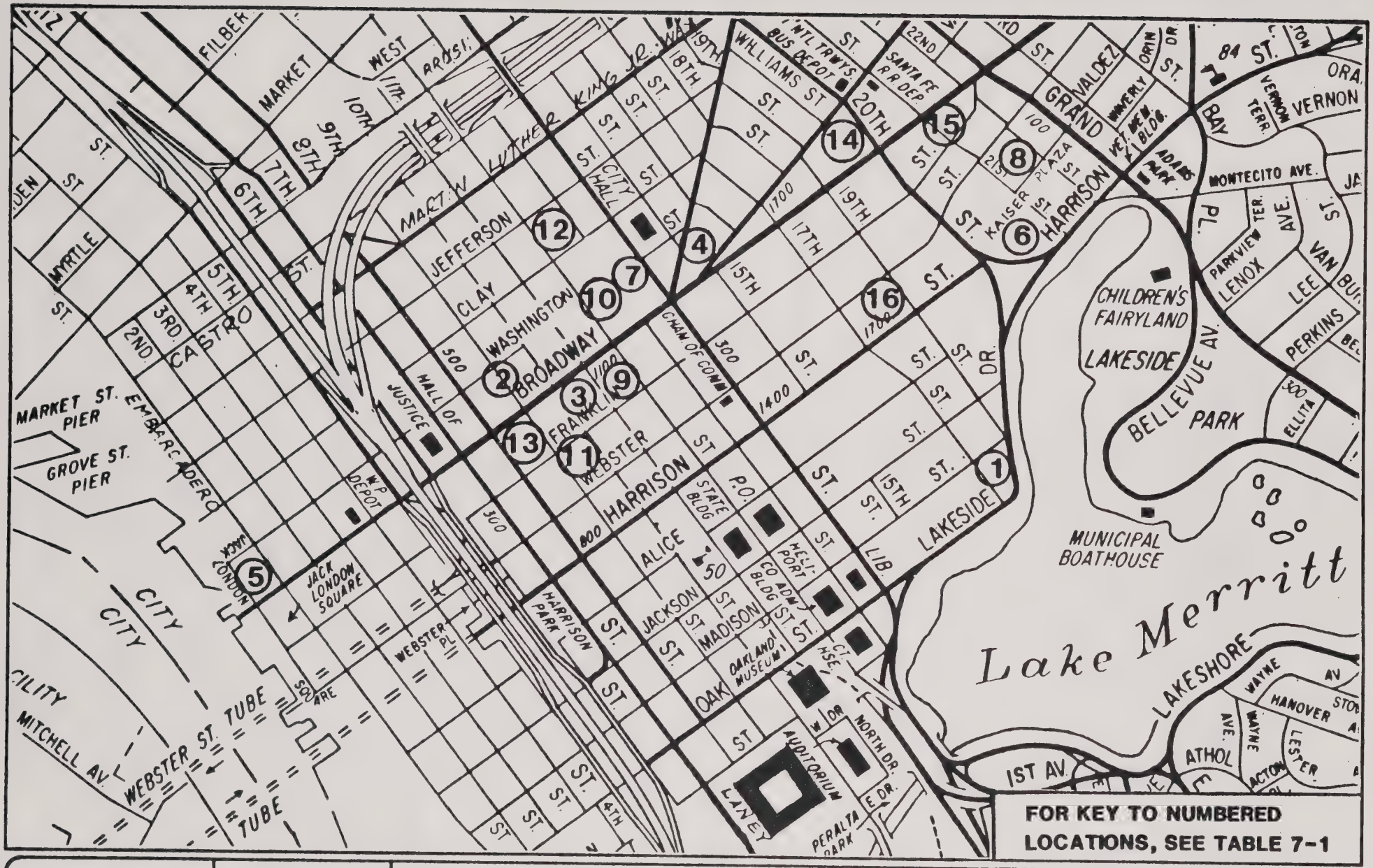


FIGURE 7-1. LOCATIONS OF DEVELOPMENT PROJECTS INCLUDED IN THE CUMULATIVE IMPACT ANALYSIS

TABLE 7-2. SUMMARY OF CUMULATIVE IMPACTS

IMPACTS	APPROVED PROJECTS (a)	PROPOSED PROJECTS (b)	PENDING PROJECTS (c)	TOTAL
Primary Jobs Created (d)	41,959	50	14,220	56,229
Secondary Jobs Created (e)	17,911	10	5,769	23,690
Housing Units Created	1,308	70	40	1,418
Students Generated (f)	916	49	28	993
Daily Trip Ends (g)	209,216	699	68,000	277,885
P.M. Peak Hour Trip Ends (h)	22,445	74	7,332	29,851
Water Demand (mgd) (i)	2.12	0.03	0.52	2.67
Wastewater Generated (mgd) (j)	1.91	0.03	0.47	2.41

(a) See Table 7-1 for the list of approved but unconstructed or unoccupied projects totaling 9,525,500 s.f. of office, 1,005,425 s.f. of retail, 600 hotel rooms, and 4,208 residential units.

(b) Proposed Old Oakland Mixed Use Project: up to 15,000 s.f. of retail and up to 70 residential units.

(c) See Table 7-1 for the list of pending projects totaling 2,949,225 s.f. of office, 734,300 s.f. of retail, and 40 residential units.

(d) Office, 4 employees per 1,000 s.f.; Retail, 3.3 employees per 1,000 s.f.; and Hotel, 0.9 employees per room; and Residential, minimal (building managers, maintenance, etc.).

(e) Office, 45 percent of primary jobs; Retail, 19 percent; and Hotel, 25 percent.

(f) 0.7 students per residential unit.

(g) Office, 18 daily trip ends per 1,000 s.f.; Retail, 20 daily trip ends per 1,000 s.f.; Hotel, 17 daily trip ends per room; and Residential, 5.7 daily trip ends per unit.

(h) Office, 11 percent of daily trips; Retail, 10 percent; Hotel, 7.4 percent; and Residential, 11 percent.

(i) Office, 156 gallons per day per 1,000 s.f.; Retail, 60 gallons per day per 1,000 s.f.; Hotel, 133 gallons per day per room; and Residential, 375 gallons per day per unit.

(CONTINUED)

TABLE 7-2 (CONTINUED). SUMMARY OF CUMULATIVE IMPACTS

(j) 90 percent of water demand.

(mgd) = millions of gallons per day

Source: Earth Metrics Incorporated, 1987.

8. EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of Oakland has prepared an Initial Study for the proposed project (see Appendix A). The Initial Study found that some environmental issues would not require indepth analysis in this EIR. These issues include the following:

NATURAL RESOURCES. The proposed project would not result in a substantial increase in the rate of use of any natural resources or a substantial depletion of any nonrenewable resource.

BIOLOGY. The proposed project would not affect existing wildlife habitats, require extensive vegetation removal, or reduce the numbers of any rare or endangered species of plants or animals.

RISK. The proposed project would not carry the risk of an explosion or the release of any hazardous substances.

9. RELATIONSHIP BETWEEN LOCAL SHORT TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The relationship between local short term uses of man's environment and the maintenance and enhancement of long term productivity is often one of tradeoffs or balancing social, economic, and environmental impacts over time. In some cases, a relatively short term benefit may have adverse cumulative effects, with the possibility that future generations and the future economy may be burdened with unwarranted social and environmental costs (see Section 7, Evaluation of Cumulative Impacts). The opposite situation, in which long term benefits occur at the expense of short term dislocations, also is possible. Decisions that influence the balancing of such impacts for this project are the responsibility of the City of Oakland as part of its policy making and regulatory function.

The proposed project's short term adverse impacts would result from construction related impacts such as noise generation and particulate (dust) emissions. The long term impacts that may occur as a result of the proposed project are listed in Section 5, summarized in Table 1-1 and fully explained in Section 3. Long term beneficial impacts from the proposed project would include the creation of additional housing units and the economic benefits of the new jobs.

10. IRREVERSIBLE ENVIRONMENTAL CHANGES AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The California Environmental Quality Act (CEQA) requires (1) an analysis of the justification of uses of nonrenewable resources during the initial and continued phases of a project which may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely; and (2) an analysis which describes irreversible damage that can result from environmental accidents associated with a project.

The proposed project would involve an irreversible commitment of the site to more intense urban uses and would require the expenditure of nonrenewable energy and materials in the construction, maintenance and operation of future facilities. The current justification for this irreversible commitment and use of these nonrenewable resources is based primarily on the demand for housing and parking in the City of Oakland.

11. REFERENCES: ORGANIZATIONS, PUBLICATIONS, AND PERSONS CONSULTED

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12. PREPARERS OF THIS REPORT

This report was prepared by Earth Metrics Incorporated, Mason Tillman Associates Ltd., A Joint Venture. The joint venture is comprised of two firms, Earth Metrics Incorporated of Burlingame, California and Mason Tillman Associates, Ltd. of Berkeley, California. This joint venture has no financial interest in the approval or disapproval of the proposed project.

EARTH METRICS INCORPORATED. The Earth Metrics staff who participated in this project are:

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Russell Leavitt, B.A., Project Manager

Lynn Alexander, B.S.

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Caesar Jhanapin, Graphics Artist

Other staff members were consulted, as appropriate.

MASON TILLMAN ASSOCIATES LTD. The Mason Tillman Associates staff who participated in this project are:

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Other staff members were consulted, as appropriate.

SUBCONSULTANT. RGM Associates of Los Altos, California participated in preparation of the findings made in Section 3.2, Traffic and Circulation.

13. APPENDICES

A. INITIAL STUDY

B. LETTERS IN RESPONSE TO THE NOTICE OF PREPARATION

C. INTERSECTION LEVEL OF SERVICE CALCULATION FORMS

File No. ER 85-41
Ref. No.

City of Oakland
Oakland, California

INITIAL STUDY
California Environmental Quality Act

I. DESCRIPTION OF THE PROJECT Old Oakland Mixed Use Redevelopment Project: located on the westerly 2/3 of the block bounded by Washington, 8th, Clay & 9th Streets. The project consists of 500± space garage; 40-70 housing units; between 7,500 - 15,000 square feet of commercial space

II. DESCRIPTION OF THE ENVIRONMENTAL SETTING The project site is located behind Ratto's International Grocers & Demi property, both of which front on Washington. The site faces the Swan's Bldg. to the north, Housewives Market to the west & a series of older commercial & hotel-type residential structures to the south. Four structures occupy approx. 1/2 of the site (two owned by Salvation Army, J & M Meats building & Fremont Hotel); the remainder of the site is used for parking.

III. ENVIRONMENTAL EFFECTS	Yes	Maybe	No	Source or Explanation
Geophysical. Will the proposal result in:				
1. Unstable earth conditions, including erosion or slides, or changes in geologic substructures either on or off the site?			X	
2. Major changes in topography or ground surface relief features?	X			see attachment to Initial Study
3. Construction on loose fill or other unstable land which might be subject to slides or liquefaction during an earthquake?			X	
4. Construction within one quarter mile of an earthquake fault?			X	
5. Substantial depletion of a nonrenewable natural resource or inhibition of its extraction?			X	
Air and Water. Will the project result in:				
6. Substantial air emissions, deterioration of ambient air quality or the creation of objectionable odors?			X	
7. Substantial degradation of water quality?			X	
8. Changed drainage patterns or increased rates or quantities of surface water runoff?	X			see attachment to Initial Study
9. Interception of an aquifer by cuts or excavations?			X	
Biotic. Will the project:				
10. Reduce the quantity of fish and wildlife in the project vicinity, interfere with migratory or other natural movement patterns, degrade existing habitats or require extensive vegetation removal?			X	
11. Reduce the numbers of any rare or endangered species of plants or animals?			X	
Land Use and Socio-Economic Factors. Will the project:				
12. Conflict with approved plans for the area or the Oakland Comprehensive Plan?			X	
13. Carry the risk of an explosion or the release of hazardous substances, including oil, pesticides, chemicals or radiation?			X	
14. Require relocation of residents and/or businesses?	X			see attachment to Initial Study
15. Cause a substantial alteration in neighborhood land use, density or character?		X		" " "
16. Generate substantially increased vehicular movement or burden existing streets or parking facilities?		X		" " "
17. Elicit substantial public controversy or opposition?		X		" " "
18. Have a substantial impact on existing transportation systems or circulation patterns?		X		" " "
19. Result in a substantial increase of the ambient noise levels for adjoining areas?		X		" " "
20. Impose a burden on public services or facilities including fire, solid waste disposal, police, schools or parks?		X		" " "
21. Impose a burden on existing utilities including electricity, gas, water, and sewers?			X	
22. Destroy, deface or alter a structure, object, natural feature or site of historic, architectural, archeological or aesthetic significance?	X			see attachment to Initial Study
23. Involve an increase of 100 or more feet in the height of any structure over any previously existing adjacent structure?			X	

Energy: Will the project:	Yes	Maybe	No	Source or Explanation
24. Use or encourage use of substantial quantities of fuel or energy?	___	___	X	___

IV. MANDATORY FINDINGS OR SIGNIFICANCE (EIR required if answer to any of the following questions is "yes" or "maybe".)

	Yes	Maybe	No
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	___	___	X
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	___	___	X
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	___	___	X
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	___	X

If any "yes" or "maybe" answers are marked, describe the specific nature of the environmental effects involved and their relationship to the project. (Use an attached sheet if necessary.) See Attachment

V. DETERMINATION:

On the basis of this initial evaluation:

☐ I find the proposed project WILL NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☒ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Name Anu Raud Date 8-27-85

Title Assistant Planner

ATTACHMENT TO INITIAL STUDY

2. The project will involve demolition of existing structures and the construction of new structures.

8. The project will cover the entire site, whereas now the surface parking lot now occupies one-half the site.

14. The project will require the relocation of several businesses and the tenants of the hotel.

15. Some may believe that this project alters the character of the area.

16 & 18. The project may have an impact on the existing transportation system.

17. The project may cause some public controversy.

19 & 20. The project may cause an increase in ambient noise levels and may impact local public services.

22. The Fremont Hotel may be considered as a district contributor to the Old Oakland District.

ES 85-41

APPENDIX B

LETTERS OF RESPONSE TO THE NOTICE OF PREPARATION

On August 27, 1985, the City of Oakland Planning Department issued a Notice of Preparation for the Old Oakland Mixed-Use Project EIR. A Notice of Preparation solicits comments from affected agencies and interested parties regarding issues of concern which should be addressed in an EIR for a project. Three responses to the Notice of Preparation were received. The responding agencies are listed below, along with references to the respective EIR sections where their issues of concern have been addressed. The actual letters in response to the Notice of Preparation follow in this Appendix.

City of Oakland Traffic Engineering and Parking Division. The traffic and parking concerns in this response are addressed in Section 3.3, Traffic and Parking, in this EIR.

California Department of Transportation. The traffic concerns in this response are addressed in Section 3.3, Traffic an Parking, in this EIR.

Oakland Heritage Alliance. The architectural and historic concerns in this response are addressed in Section 3.4, Visual Quality, Urban Design, and Historical Resources, in this EIR.

The low income housing destruction concern is addressed in Section 3.2, Population, Housing and Employment, in this EIR.

The Central District Development Plan concern is addressed in Section 3.1, Land Use and Planning, in this EIR.

CITY OF OAKLAND
Interoffice Letter

File: TR8.08

To: City Planning Attention: Alvin James Date: September 26, 1985

From: Traffic Engineering & Parking Division

Subject: Notice of Preparation of DEIR-
Old Oakland Mixed Use Redevelopment Project

This letter is in response to your August 27, 1985 Notice of Preparation of DEIR for the subject project.

The attached Draft of the Environmental Evaluation Guidelines for Transportation Impacts lists specific items that should be addressed in the DEIR/DEIS. The following items are also of particular concern for the specific project site and should be addressed in the DEIR/DEIS.

a) Access to the site is critical since the site is bounded by one-way streets on the north and south side. The DEIR should identify the access and evaluate the driveway impacts with relation to existing driveways of other businesses. The site evaluation section should include evaluation of truck loading activities, location of transit stops and so on.

b) Parking is critical in the downtown area, particularly short term. The DEIR should evaluate parking, both on-street and off-street, differentiating between short term and long term parking. The DEIR should clearly identify the parking demand of the area, the potential users of the parking facility and how the proposed garage will relieve the parking shortage in the area.

c) The off-site traffic analysis should primarily focus on the intersections surrounding the site and include a generalized traffic analysis for the intersections along the routes to and from the freeway system.

The traffic associated with this development will consist of two components-- 1) traffic that will be a redistribution of existing traffic using the new garage and 2) traffic that will be associated with the 50 to 70 housing units and 15,000 square feet of commercial space. The redistribution of existing traffic will have insignificant impacts at intersections two to three blocks from the site. The housing units and commercial space could generate approximately 37 vehicles per p.m. peak hour which will have insignificant impacts.

Notice of Preparation of DEIR-Old
Oakland Mixed Uses Redevelopment Project

September 23, 1985

Therefore, we recommend that the traffic impact study focus on the intersections adjacent to the site and include some general estimate for off-site impacts to demonstrate that this project will have no significant impacts on the freeway or its ramps. We propose that City planning staff meet with us prior to approving the consultant's work scope for the traffic and transportation analysis and that the consultant meet with us prior to commencement of work. Eugenie Thomson will be the contact person for this project.

MICHAEL F. PICKERING
City Traffic Engineer

EPT/ea

Attachment

cc: Bill Algire (Engineering Services, 8th Floor)
Anu Raud (City Planning, 6th Floor)

D R A F T

ENVIRONMENTAL EVALUATION GUIDELINES, TRANSPORTATION IMPACTS, FOR CITY OF OAKLAND

I. PROJECT DESCRIPTION

A. Location (map)

B. Square footage by use (i.e., office, retail, residential, etc.); staging/phasing, if any

C. Site Plan showing:

1. auto, transit, pedestrian, service vehicle access
2. parking facilities (number of spaces, dimensions, circulation pattern)
3. Truck loading areas (number of spaces, dimensions)
4. Any proposed sidewalk/street improvements including locations of bus stops

D. Description of method of operation of parking and truck loading facilities (if any)

II. EXISTING CONDITIONS (In Vicinity of Project)*

A. Street System

1. Number of lanes and any transit/bike lanes on major streets (map)
2. Traffic volumes on major streets
3. Peak hour level of service at critical intersections

B. Transit System

1. Locations of lines (map), bus stops
2. General areas directly accessible to project via transit
3. Peak hour/midday frequency of service
4. Peak hour ridership/peak hour load factors

C. Parking

1. Percent on-street spaces occupied } IDENTIFY EXISTING
2. Percent off-street spaces occupied } DEFICIENCY/SURPLUS
3. Number and location of public off-street spaces within three blocks (1,200 feet) of project.

---

* The area roughly within 1/4 mile radius of proposed project.

D. Miscellaneous

1. Bicycle facilities (routes, lanes), if any
2. Curbside truck loading zones on project block, if any
3. Special pedestrian facilities/problems, if any
4. Any other issues

III. IMPACT ANALYSIS

A. Trip Generation of Project

1. Daily/peak hour trip generation
2. Geographic distribution of trips
3. Mode split

B. Baseline Projections (with no project)

1. Trip generation of approved but uncompleted projects and baseline growth
2. Traffic volumes in forecast year
3. Transit ridership in forecast year
4. Parking demand in forecast year

C. Traffic Impacts

1. Peak hour level of service at critical signalized intersections
2. Critical corridor analysis including ramp termini capacities
3. Delay/signal warrants & LOS/other controls at critical non-signalized intersections
4. Pedestrian flows/LOS for critical crosswalks and/or sidewalk areas
5. Delays/changes at existing RR crossings
6. Emergency vehicle access

D. Transit Impacts

1. Peak hour load factors on critical transit lines
2. General system impacts
3. Lay-over areas for AC Transit buses

E. Parking Impacts

1. Percent off-street parking spaces occupied, deficiency/ surplus of parking

F. Service Vehicle Impacts

1. Maneuvering/docking impacts
2. Curbside loading zone impacts

G. Transportation Impacts of Construction

1. Street/sidewalk closures
2. Circulation impacts
3. Parking impacts
4. Transit service impacts

H. Policy Implications

1. Consistency of project with City plans/policy

IV. ALTERNATIVES

1. Traffic/transit/parking impacts of selected alternatives to proposed project

V. MITIGATION MEASURES

1. Proposed/suggested measures for mitigating adverse transportation impacts of project. Levels of service and other appropriate parameters to be estimated, where applicable, for each mitigation measure

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX 7310
SAN FRANCISCO 94120
(415) 557-1840

September 16, 1985

ALA880-PM31.62
AL880070

Anu Raud
City of Oakland
City Planning - 6th Floor
One City Hall Plaza
Oakland, CA 94612

Re: NOP For a Draft EIR for Old Oakland Mixed Use Development Project

Dear Mr. Raud:

Thank you for including Caltrans in the environmental review process for the above-referenced project. The environmental document should address traffic impacts in the following terms:

a. Trip generation, distribution and assignment;

b. ADT (average daily traffic), and AM and PM peak hour volumes for State Rte 880 and for all significantly affected streets and highways;

c. Volumes for all through and turning movements in the affected intersections/interchanges should be shown and intersection capacity utilization calculations should be done;

d. Data should relate to existing and future conditions, the latter with project traffic and with cumulative traffic generated by approved projects within the study area;

e. Proposed mitigation, including modal alternates and highway improvements and their proposed financing mechanisms should be discussed.

We look forward to reviewing the draft EIR. We expect to receive a copy from the State Clearinghouse. However, to expedite the review process, you may send an advance copy to the undersigned, contact person for this agency, at the following address:

WALLACE J. ROTHBART
District CEQA Coordinator
Caltrans District 4
P.O. Box 7310
San Francisco, CA 94120

Should you have any questions regarding these comments, please contact Peter Estacio of my staff at (415) 557-2483.

Sincerely yours,

BURCH C. BACHTOLD
District Director

By

WALLACE J. ROTHBART
District CEQA Coordinator

OAKLAND HERITAGE ALLIANCE

September 24, 1985

Anu Raud
City of Oakland
City Planning - 6th Floor
One City Hall Plaza
Oakland, CA 94612

Re: Old Oakland Project

Dear Ms. Raud:

Pursuant to the Notice of Preparation for the above project dated 82785, please be advised that the Oakland Heritage Alliance feels that the following issues should be considered in preparing the Draft EIR:

(1) Destruction of an architectural resource (Hotel Fremont) identified as a contributor to the Old Oakland District;

(2) Destruction of low-income housing resources;

(3) Approval of the project prior to release of the CDDP final report, which is designed to discuss and analyze, in a coordinated fashion, all projects in the downtown area.

Please contact the undersigned at the address given, or during the days at 8346600, for additional comment or input.

Very truly yours,

OAKLAND HERITAGE ALLIANCE

Les Hausrath

Les A. Hausrath
Vice President

LAH/bc

Oakland Heritage Alliance, 5569 Lawton Avenue, Oakland, California 94618

RGM ASSOCIATES
TRANSPORTATION ENGINEERS
146 MAIN STREET 204, LOS ALTOS, CALIFORNIA 94023-0177
(415) 948-1105

C A P S S I - 8 5
INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING REQUIRED CYCLE TIME

9th Street & CLAY E	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	82	32	16	8	14	30	24
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.11	0.05	0.04	0.02	0.04	0.09	0.07
Green Times (effective)	9	8	8	9	9	8	8
Movement Times	11	10	10	11	11	10	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	7	7	6	6	6	7	7
Level of Service	B+	B+	B+	B+	B+	B+	B+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	75	76	76	73	73	75	75
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Required Cycle Length is 32 seconds
Intersection Capacity Utilization (ICU) = 0.07

E11

C A P S S I - 8 5
INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

9th Street and Clay E	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	82	32	16	8	14	30	24
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.06	0.06	0.06	0.01	0.02	0.12	0.10
Green Times (effective)	22	9	9	22	22	9	9
Movement Times	24	11	11	24	24	11	11
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	5	11	11	5	5	11	11
Level of Service	A	B-	B-	A	A	B-	B-
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	53	82	82	51	51	81	81
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 8 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.06

RGM ASSOCIATES
TRANSPORTATION ENGINEERS
146 MAIN STREET 204, LOS ALTOS, CALIFORNIA 94023-0177
(415) 948-1105

C A P S S I - 8 5
INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING REQUIRED CYCLE TIME

	LANE GROUPS						
9TH Street & CLAY E+G	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	129	50	25	13	22	47	38
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.18	0.07	0.07	0.04	0.06	0.14	0.11
Green Times (effective)	9	8	8	9	9	8	8
Movement Times	11	10	10	11	11	10	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	7	7	6	6	6	7	7
Level of Service	B+	B+	B+	B+	B+	B+	B+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	76	76	76	73	73	75	75
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Required Cycle Length is 32 seconds
Intersection Capacity Utilization (ICU) = 0.11

C A P S S I - 8 5
INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

	LANE GROUPS						
9th Street and Clay E+G	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	95	37	19	9	16	35	28
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.07	0.07	0.07	0.01	0.02	0.14	0.11
Green Times (effective)	22	8	9	22	22	8	9
Movement Times	24	10	11	24	24	10	11
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	5	11	11	5	5	12	11
Level of Service	A	B-	B-	A	A	B-	B-
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	53	82	82	52	52	81	81
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 8 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.07

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INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

9th & CLAY E+G+P	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	98	175	21	53	16	72	64
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.13	0.13	0.13	0.14	0.04	0.11	0.10
Green Times (effective)	17	30	7	17	17	30	30
Movement Times	19	32	9	19	19	32	32
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	12	6	18	12	12	6	6
Level of Service	B-	B+	C+	B-	B-	B+	B+
Av Queue @ start of green	1	1	0	1	0	1	1
Vehicles stopping (%)	75	54	89	72	72	50	50
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

ritical Movements - Weighted Av Delay (sec) = 9 Level of Service = B+
hole Intersection - Weighted Av Delay (sec) = 9 Level of Service = B+

Predetermined Cycle Length is 60 seconds
Intersection Capacity Utilization (ICU) = 0.13

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INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

	LANE GROUPS						
9th and Clay E+G+P	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	98	175	21	53	16	72	64
Saturation Flow (vph)	2650	2650	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.14	0.14	0.14	0.15	0.04	0.11	0.42
Green Times (effective)	12	22	5	12	12	22	5
Movement Times	14	24	7	14	14	24	7
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	9	5	14	10	9	5	15
Level of Service	B+	A	B-	B+	B+	A	C+
Av Queue @ start of green	1	1	0	0	0	0	1
Vehicles stopping (%)	76	56	90	73	73	52	88
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 8 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.14

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CITY of OAKLAND

SOLUTION USING REQUIRED CYCLE TIME

9th Street & WASHINGTON E	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	100	41	6	24	14	39	24
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.11	0.13	0.02	0.05	0.03	0.12	0.07
Green Times (effective)	12	9	8	12	12	9	8
Movement Times	14	11	10	14	14	11	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	6	8	7	6	6	8	8
Level of Service	B+	B+	B+	B+	B+	B+	B+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	70	78	78	67	67	75	77
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

tical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Required Cycle Length is 35 seconds
Intersection Capacity Utilization (ICU) = 0.09

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INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

	LANE GROUPS						
9th & Washington E	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	100	41	6	24	14	39	24
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.08	0.08	0.08	0.04	0.02	0.08	0.34
Green Times (effective)	20	16	2	20	20	16	2
Movement Times	22	18	4	22	22	18	4
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	5	7	15	5	5	7	17
Level of Service	B+	B+	C+	B+	B+	B+	C+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	57	65	95	55	55	63	95
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 6 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.08

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SOLUTION USING REQUIRED CYCLE TIME

9th Street & WASHINGTON E+G	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	116	47	6	28	16	45	28
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.13	0.15	0.02	0.06	0.04	0.14	0.08
Green Times (effective)	12	9	8	12	12	9	8
Movement Times	14	11	10	14	14	11	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	6	8	8	6	6	8	8
Level of Service	B+	B+	B+	B+	B+	B+	B+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	69	79	78	66	66	76	78
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Required Cycle Length is 36 seconds
Intersection Capacity Utilization (ICU) = 0.10

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INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

9th & Washington E+G	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	116	47	6	28	16	45	28
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.10	0.10	0.10	0.05	0.03	0.09	0.45
Green Times (effective)	20	17	2	20	20	17	2
Movement Times	22	19	4	22	22	19	4
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	5	7	16	5	5	7	19
Level of Service	B+	B+	C+	B+	B+	B+	C+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	57	66	96	55	55	63	95
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 6 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.10

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INTERSECTION CAPACITY ANALYSIS
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SOLUTION USING REQUIRED CYCLE TIME

8th & WASHINGTON E+G+P	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	127	47	7	28	16	45	32
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.13	0.15	0.02	0.06	0.03	0.15	0.10
Green Times (effective)	14	9	8	14	14	9	8
Movement Times	16	11	10	16	16	11	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	6	9	8	6	6	9	8
Level of Service	B+	B+	B+	B+	B+	B+	B+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	67	79	79	64	64	77	79
No Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 7 Level of Service = B+
Entire Intersection - Weighted Av Delay (sec) = 7 Level of Service = B+

Required Cycle Length is 37 seconds
Intersection Capacity Utilization (ICU) = 0.10

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INTERSECTION CAPACITY ANALYSIS
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CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

	LANE GROUPS						
9th & Washington E+G+P	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	127	47	7	28	16	45	32
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.10	0.10	0.10	0.05	0.03	0.10	0.47
Green Times (effective)	21	16	2	21	21	16	2
Movement Times	23	18	4	23	23	18	4
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	5	8	15	5	5	8	19
Level of Service	B+	B+	C+	A	A	B+	C+
Av Queue @ start of green	1	0	0	0	0	0	0
Vehicles stopping (%)	56	68	95	53	53	65	95
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 6 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 8 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.10

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SOLUTION USING REQUIRED CYCLE TIME

8th & WASHINGTON E	LANE GROUPS CM 1	CM 2	3	4	5	6	7
Peak 15 Min Flow (vph)	674	64	58	16	42	26	22
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.35	0.25	0.22	0.02	0.04	0.10	0.09
Green Times (effective)	33	8	8	33	33	8	8
Movement Times	35	10	10	35	35	10	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	2	12	12	1	1	12	12
Level of Service	A	B-	B-	A	A	B-	B-
Av Queue @ start of green	2	1	1	0	0	0	0
Vehicles stopping (%)	38	87	83	28	28	83	83
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 3 Level of Service = A
Whole Intersection - Weighted Av Delay (sec) = 4 Level of Service = A

Required Cycle Length is 46 seconds
Intersection Capacity Utilization (ICU) = 0.30

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INTERSECTION CAPACITY ANALYSIS
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CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

	LANE GROUPS						
8th & Washington E	CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	674	64	58	16	42	26	22
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.40	0.40	0.40	0.02	0.05	0.16	0.15
Green Times (effective)	29	5	5	29	29	5	5
Movement Times	31	7	7	31	31	7	7
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	3	15	15	2	2	14	14
Level of Service	A	B-	C+	A	A	B-	B-
Av Queue @ start of green	3	1	1	0	0	0	0
Vehicles stopping (%)	49	92	93	36	36	88	89
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 5 Level of Service = A
Whole Intersection - Weighted Av Delay (sec) = 5 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.40

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SOLUTION USING REQUIRED CYCLE TIME

			LANE GROUPS				
8th & WASHINGTON E+G	CM 1	CM 2	3	4	5	6	7
Peak 15 Min Flow (vph)	780	74	67	19	49	30	25
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.41	0.29	0.26	0.02	0.05	0.12	0.10
Green Times (effective)	34	8	8	34	34	8	8
Movement Times	36	10	10	36	36	10	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	2	13	12	1	1	12	12
Level of Service	A	B-	B-	A	A	B-	B-
Av Queue @ start of green	3	1	1	0	0	0	0
Vehicles stopping (%)	39	88	83	28	28	83	83
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 3 Level of Service = A
Whole Intersection - Weighted Av Delay (sec) = 4 Level of Service = A

Required Cycle Length is 47 seconds
Intersection Capacity Utilization (ICU) = 0.35

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INTERSECTION CAPACITY ANALYSIS
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SOLUTION USING PREDETERMINED CYCLE TIMES

8th & Washington E+G	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	780	74	67	19	49	30	25
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.46	0.46	0.46	0.02	0.06	0.19	0.17
Green Times (effective)	29	5	5	29	29	5	5
Movement Times	31	7	7	31	31	7	7
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	3	16	16	2	2	14	14
Level of Service	A	C+	C+	A	A	B-	B-
Av Queue @ start of green	4	1	1	0	0	0	0
Vehicles stopping (%)	52	93	94	36	36	88	89
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 5 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 6 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.46

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SOLUTION USING REQUIRED CYCLE TIME

8th & WASHINGTON E+G+P	LANE GROUPS CM 1	CM 2	3	4	5	6	7
Peak 15 Min Flow (vph)	785	74	73	19	49	34	31
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.41	0.29	0.29	0.02	0.05	0.14	0.12
Green Times (effective)	34	8	8	34	34	8	8
Movement Times	36	10	10	36	36	10	10
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	2	13	13	1	1	12	12
Level of Service	A	B-	B-	A	A	B-	B-
Av Queue @ start of green	3	1	1	0	0	0	0
Vehicles stopping (%)	39	88	84	27	27	83	83
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 3 Level of Service = A
The Intersection - Weighted Av Delay (sec) = 4 Level of Service = A

Required Cycle Length is 47 seconds
Intersection Capacity Utilization (ICU) = 0.35

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INTERSECTION CAPACITY ANALYSIS
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SOLUTION USING PREDETERMINED CYCLE TIMES

8th & Washington E+G+P	LANE GROUPS CM 1	CM 2	CM 3	4	5	6	7
Peak 15 Min Flow (vph)	785	74	73	19	49	34	31
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.47	0.47	0.47	0.02	0.06	0.22	0.20
Green Times (effective)	28	5	5	28	28	5	5
Movement Times	30	7	7	30	30	7	7
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	3	16	16	2	2	14	14
Level of Service	A	C+	C+	A	A	B-	B-
Av Queue @ start of green	4	1	1	0	0	0	0
Vehicles stopping (%)	52	93	93	37	37	88	88
Do Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

Critical Movements - Weighted Av Delay (sec) = 5 Level of Service = B+
Whole Intersection - Weighted Av Delay (sec) = 6 Level of Service = B+

Predetermined Cycle Length is 45 seconds
Intersection Capacity Utilization (ICU) = 0.47

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INTERSECTION CAPACITY ANALYSIS
PER 1985 HIGHWAY CAPACITY MANUAL

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SOLUTION USING REQUIRED CYCLE TIME

& CLAY E+G+P	LANE GROUPS CM 1	CM 2	3	4	5	6	7
k 15 Min Flow (vph)	822	47	44	28	45	136	142
uration Flow (vph)	2650	1325	1325	1325	1325	1325	1325
t Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ative Saturation - 'X'	0.39	0.24	0.22	0.03	0.04	0.70	0.73
en Times (effective)	48	8	8	48	48	8	8
ement Times	50	10	10	50	50	10	10
imum Times	10	10	10	10	10	10	10
gression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
rage Delays (sec/veh)	2	18	18	1	1	26	27
el of Service	A	C+	C+	A	A	D+	D+
Queue @ start of green	3	1	1	0	0	2	2
icles stopping (%)	31	90	87	21	21	87	87
Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

al Movements - Weighted Av Delay (sec) = 2 Level of Service = A
Intersection - Weighted Av Delay (sec) = 8 Level of Service = B+

Required Cycle Length is 61 seconds
Intersection Capacity Utilization (ICU) = 0.32

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CITY of OAKLAND

SOLUTION USING PREDETERMINED CYCLE TIMES

5th & CLAY	LANE GROUPS CM 1	CM 2	3	4	5	6	7
Peak 15 Min Flow (vph)	822	58	44	28	40	41	89
Saturation Flow (vph)	2650	1325	1325	1325	1325	1325	1325
Lost Times (seconds)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Relative Saturation - 'X'	0.38	0.38	0.29	0.03	0.04	0.27	0.58
Green Times (effective)	49	7	7	49	49	7	7
Movement Times	51	9	9	51	51	9	9
Minimum Times	10	10	10	10	10	10	10
Progression Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Delays (sec/veh)	1	19	19	1	1	19	23
Level of Service	A	C+	C+	A	A	C+	C-
Av Queue @ start of green	2	1	1	0	0	1	1
Vehicles stopping (%)	26	93	88	18	18	88	88
90 Vehicles Clear	YES	YES	YES	YES	YES	YES	YES

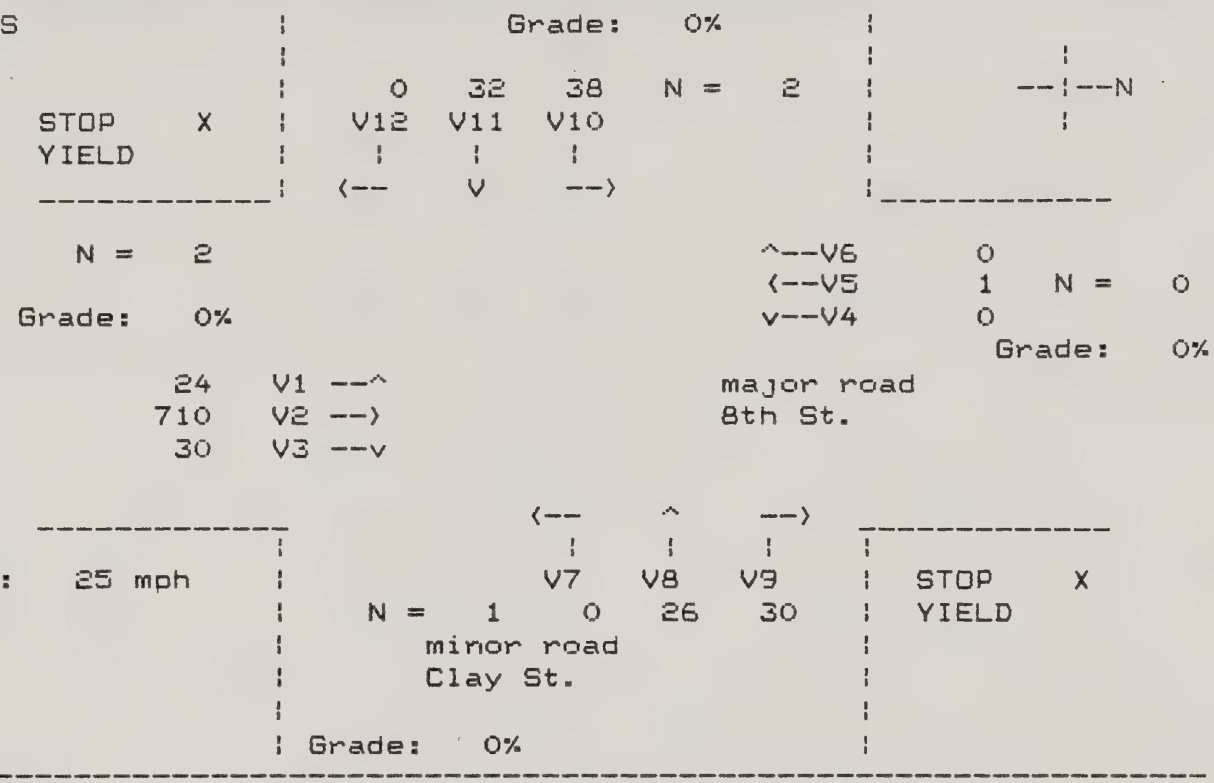
Critical Movements - Weighted Av Delay (sec) = 2 Level of Service = A
Whole Intersection - Weighted Av Delay (sec) = 5 Level of Service = B+

Predetermined Cycle Length is 60 seconds
Intersection Capacity Utilization (ICU) = 0.38

Location: 8th & Clay St., Oakland E By: RKH

Date: 7/9/87 Time:4-5 PM peak hour

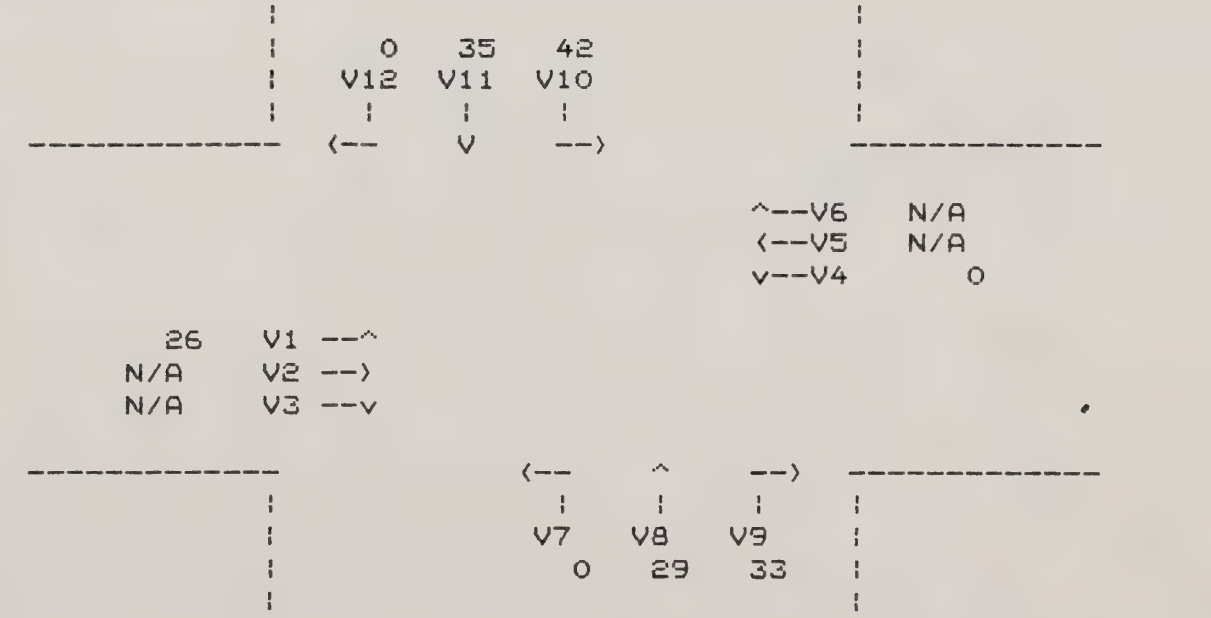
HOURLY VOLUMES



VOLUME ADJUSTMENTS

Movement No.	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
Volume (vph)	24	710	30	0	1	0	0	26	30	38	32	0
Volume (pcph)	26	==========		0	==========		0	29	33	42	35	0

VOLUMES IN PCPH



RGM Associates - Transortation Engineering - Los Altos, CA 94022

Location: 8th & Clay St., Oakland E

Date: 7/9/87 Time:4-5 PM peak hour

STEP 1: RT From Minor Street	--> V9 = 30	<-- V12 = 0
Conflicting Flows, Vc	Vc9 = 725 vph	Vc12= 1 vph
Critical Gap, Tc (Tab. 10-2)	5.0 sec.	5.0 sec.
Potential Capacity, Cp	Cp9 = 546 pcph	Cp12=1219 pcph
Percent Cp Utilized	5%	0%
Impedance Factor, P	P9 =0.96	P12 =1.00
Actual Capacity, Cm	Cm9 = 546 pcph	Cm12=1219 pcph
STEP 2: LT From Major Street	v---- V4 = 0	----^ V1 = 24
Conflicting Flows, Vc	Vc4 = 740 vph	Vc1 = 1 vph
Critical Gap, Tc (Tab. 10-2)	4.0 sec.	4.0 sec.
Potential Capacity, Cp	Cp4 = 792 pcph	Cp1 =1524 pcph
Percent Cp Utilized	0%	2%
Impedance Factor, P	P4 =1.00	P1 =0.99
Actual Capacity, Cm	Cm4 = 792 pcph	Cm1 =1524 pcph
STEP 3: TH From Minor Street	^ V8 = 26	V V11 = 32
Conflicting Flows, Vc	Vc8 = 750 vph	Vc11= 765 vph
Critical Gap, Tc (Tab. 10-2)	5.5 sec.	5.5 sec.
Potential Capacity, Cp	Cp8 = 443 pcph	Cp11= 435 pcph
Percent Cp Utilized	6%	7%
Impedance Factor, P	P8 =0.96	P11 =0.95
Actual Capacity, Cm	Cm8 = 438 pcph	Cm11= 430 pcph
STEP 4: LT From Minor Street	<-- V7 = 0	-->V10 = 38
Conflicting Flows, Vc	Vc7 = 782 vph	Vc10= 821 vph
Critical Gap, Tc (Tab. 10-2)	6.0 sec.	6.0 sec.
Potential Capacity, Cp	Cp7 = 357 pcph	Cp10= 338 pcph
Actual Capacity, Cm	Cm7 = 334 pcph	Cm10= 308 pcph

Location: 8th & Clay St., Oakland E

Date: 7/9/87 Time:4-5 PM peak hour

Cm = Capacity of the movement
Csh = Shared lane capacity
Cr = Reserve Capacity
LoS = Level of Service

(Circle the appropriate lane combinations.)

Cr	LoS	Delay
)400	A	Little
300-399	B	Short
200-299	C	Average
100-199	D	Long
0-99	E	Very long

MINOR STREET APPROACH MOVEMENTS 7, 8, 9

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
7	0	334		334		B
8	29	438		409		A
9	33	546		513		A
7+8+9	62		490		428	A
7+8	29		438		409	A
8+9	62		490		428	A

MINOR STREET APPROACH MOVEMENTS 10, 11, 12

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
10	42	308		266		C
11	35	430		394		B
12	0	1219		1219		A
10+11+12	77		354		277	C
10+11	77		354		277	C
11+12	35		430		394	B

MAJOR STREET LEFT TURNS 1, 4

Movement	V (pcph)	Cm (pcph)	Cr=Cm-V (pcph)	LoS
1	26	1524	1498	A
4	0	792	792	A

COMMENTS:
V5 =1 is a dummy volume to facilitate computations only.

RGM Associates - Transortation Engineering - Los Altos, CA 94022

```
------------------------------------------------------------------------------------
Location:        8th & Clay St., Oakland                            By:  RKH
------------------------------------------------------------------------------------
Date:            7/9/87                  Time:E+G PM peak hour
====================================================================================
HOURLY VOLUMES               |             Grade:    0%        |
                             |                                 |           |
                             |    0    37    44   N =    2     |       --|--N
               STOP     X    |   V12   V11   V10               |           |
               YIELD         |    |     |     |                |
               ______________|  <--     V     -->              |____________

                 N =    2                                ^--V6       0
                                                         <--V5       1    N =    0
              Grade:    0%                               v--V4       0
                                                                       Grade:    0%
                       28    V1 --^                    major road
                      822    V2 -->                    8th St.
                       35    V3 --v

               ______________           <--     ^     -->      ____________
                             |           |      |      |      |
Average Speed:    25 mph     |           V7     V8     V9     |  STOP     X
                             |     N =    1     0     30    35    |  YIELD
                             |         minor road              |
                             |         Clay St.                |
                             |                                 |
                             | Grade:    0%                    |
------------------------------------------------------------------------------------
VOLUME ADJUSTMENTS
```

Movement No.	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
Volume (vph)	28	822	35	0	1	0	0	30	35	44	37	0
Volume (pcph)	31	==========		0	==========		0	33	39	48	41	0

```
------------------------------------------------------------------------------------
VOLUMES IN PCPH
                             |                                 |
                             |    0    41    48                |
                             |   V12   V11   V10               |
                             |    |     |     |                |
               ______________  <--     V     -->               ____________

                                                         ^--V6    N/A
                                                         <--V5    N/A
                                                         v--V4       0

                        31   V1 --^
                       N/A   V2 -->
                       N/A   V3 --v

               ______________           <--     ^     -->      ____________
                             |           |      |      |      |
                             |           V7     V8     V9     |
                             |            0     33     39     |
                             |                                |

------------------------------------------------------------------------------------
   RGM Associates - Transortation Engineering - Los Altos, CA 94022
```

Location: 8th & Clay St., Oakland

Date: 7/9/87 Time:E+G PM peak hour

STEP 1: RT From Minor Street	--> V9 = 35	<-- V12 = 0
Conflicting Flows, Vc	Vc9 = 840 vph	Vc12= 1 vph
Critical Gap, Tc (Tab. 10-2)	5.0 sec.	5.0 sec.
Potential Capacity, Cp	Cp9 = 479 pcph	Cp12=1219 pcph
Percent Cp Utilized	7%	0%
Impedance Factor, P	P9 =0.95	P12 =1.00
Actual Capacity, Cm	Cm9 = 479 pcph	Cm12=1219 pcph
STEP 2: LT From Major Street	v---- V4 = 0	----^ V1 = 28
Conflicting Flows, Vc	Vc4 = 857 vph	Vc1 = 1 vph
Critical Gap, Tc (Tab. 10-2)	4.0 sec.	4.0 sec.
Potential Capacity, Cp	Cp4 = 713 pcph	Cp1 =1524 pcph
Percent Cp Utilized	0%	2%
Impedance Factor, P	P4 =1.00	P1 =0.99
Actual Capacity, Cm	Cm4 = 713 pcph	Cm1 =1524 pcph
STEP 3: TH From Minor Street	^ V8 = 30	V V11 = 37
Conflicting Flows, Vc	Vc8 = 869 vph	Vc11= 886 vph
Critical Gap, Tc (Tab. 10-2)	5.5 sec.	5.5 sec.
Potential Capacity, Cp	Cp8 = 382 pcph	Cp11= 373 pcph
Percent Cp Utilized	8%	10%
Impedance Factor, P	P8 =0.94	P11 =0.93
Actual Capacity, Cm	Cm8 = 377 pcph	Cm11= 368 pcph
STEP 4: LT From Minor Street	<-- V7 = 0	--> V10 = 44
Conflicting Flows, Vc	Vc7 = 906 vph	Vc10= 951 vph
Critical Gap, Tc (Tab. 10-2)	6.0 sec.	6.0 sec.
Potential Capacity, Cp	Cp7 = 301 pcph	Cp10= 283 pcph
Actual Capacity, Cm	Cm7 = 276 pcph	Cm10= 249 pcph

RGM Associates - Transortation Engineering - Los Altos, CA 94022

Location: 8th & Clay St., Oakland

Date: 7/9/87 Time:E+G PM peak hour

Cm = Capacity of the movement
Csh = Shared lane capacity
Cr = Reserve Capacity
LoS = Level of Service

(Circle the appropriate lane combinations.)

Cr	LoS	Delay
)400	A	Little
300-399	B	Short
200-299	C	Average
100-199	D	Long
0-99	E	Very long

MINOR STREET APPROACH MOVEMENTS 7, 8, 9

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
7	0	276		276		C
8	33	377		344		B
9	39	479		441		A
7+8+9	72		426		354	B
7+8	33		377		344	B
8+9	72		426		354	B

MINOR STREET APPROACH MOVEMENTS 10, 11, 12

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
10	48	249		201		C
11	41	368		328		B
12	0	1219		1219		A
10+11+12	89		293		204	C
10+11	89		293		204	C
11+12	41		368		328	B

MAJOR STREET LEFT TURNS 1, 4

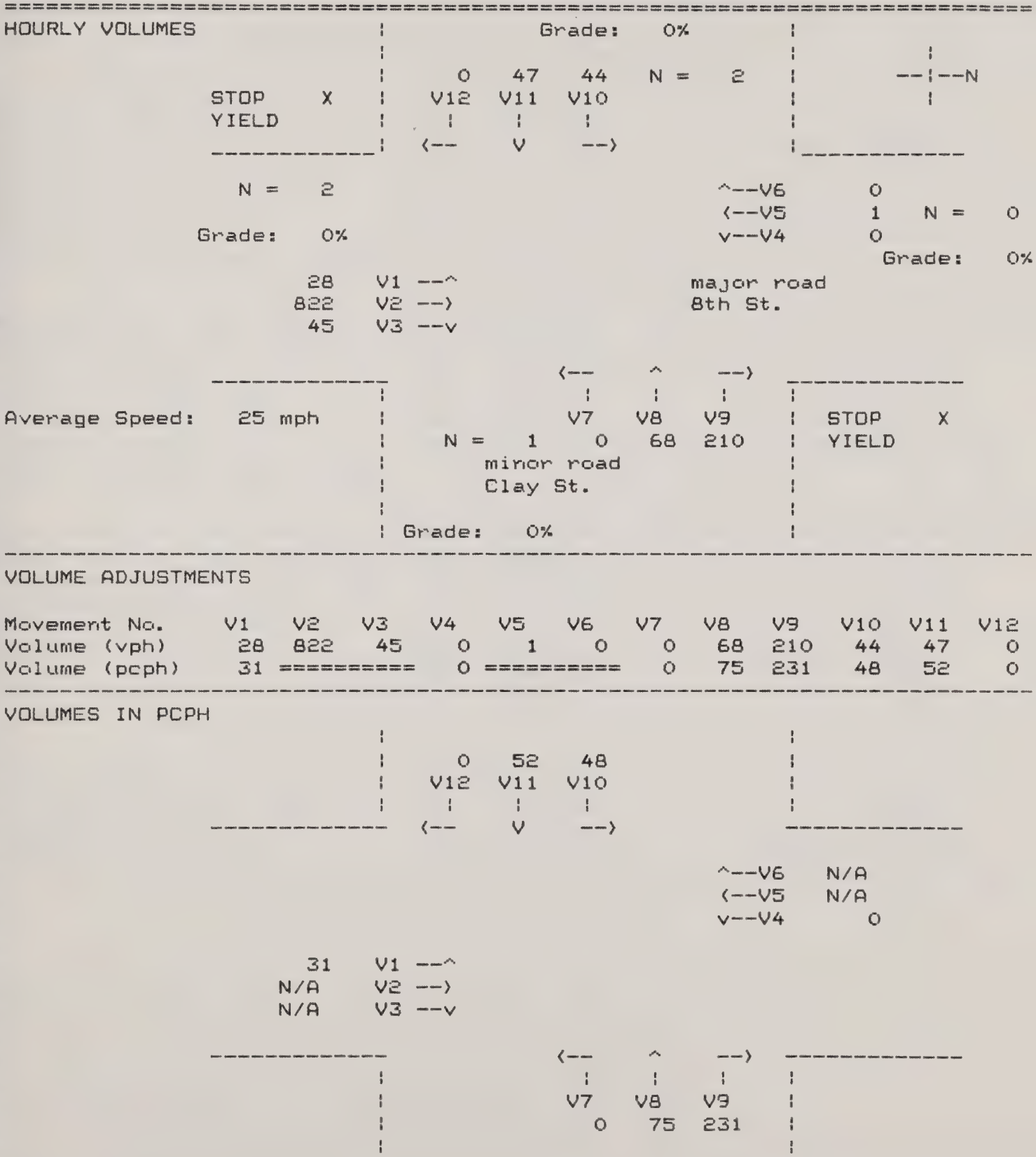
Movement	V (pcph)	Cm (pcph)	Cr=Cm-V (pcph)	LoS
1	31	1524	1493	A
4	0	713	713	A

COMMENTS:
V5 =1 is a dummy volume to facilitate computations only.

Location: 8th & Clay St., Oakland By: RKH

Date: 8/7/87 Time:E+G+P PM peak hour

HOURLY VOLUMES



N = 2
Grade: 0%

28 V1 --^
822 V2 --)
45 V3 --v

^--V6 0
<--V5 1 N = 0
v--V4 0
Grade: 0%

major road
8th St.

Average Speed: 25 mph

<-- ^ -->
V7 V8 V9
N = 1 0 68 210
minor road
Clay St.
Grade: 0%

STOP X
YIELD

VOLUME ADJUSTMENTS

Movement No.	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
Volume (vph)	28	822	45	0	1	0	0	68	210	44	47	0
Volume (pcph)	31	==========		0	==========		0	75	231	48	52	0

VOLUMES IN PCPH

^--V6 N/A
<--V5 N/A
v--V4 0

31 V1 --^
N/A V2 --)
N/A V3 --v

<-- ^ -->
V7 V8 V9
0 75 231

Location: 8th & Clay St., Oakland

Date: 8/7/87 Time:E+G+P PM peak hour

STEP 1: RT From Minor Street	--> V9 = 210	<-- V12 = 0
Conflicting Flows, Vc	Vc9 = 845 vph	Vc12= 1 vph
Critical Gap, Tc (Tab. 10-2)	5.0 sec.	5.0 sec.
Potential Capacity, Cp	Cp9 = 476 pcph	Cp12=1219 pcph
Percent Cp Utilized	44%	0%
Impedance Factor, P	P9 =0.64	P12 =1.00
Actual Capacity, Cm	Cm9 = 476 pcph	Cm12=1219 pcph
STEP 2: LT From Major Street	v---- V4 = 0	----^ V1 = 28
Conflicting Flows, Vc	Vc4 = 867 vph	Vc1 = 1 vph
Critical Gap, Tc (Tab. 10-2)	4.0 sec.	4.0 sec.
Potential Capacity, Cp	Cp4 = 707 pcph	Cp1 =1524 pcph
Percent Cp Utilized	0%	2%
Impedance Factor, P	P4 =1.00	P1 =0.99
Actual Capacity, Cm	Cm4 = 707 pcph	Cm1 =1524 pcph
STEP 3: TH From Minor Street	^ V8 = 68	V V11 = 47
Conflicting Flows, Vc	Vc8 = 874 vph	Vc11= 896 vph
Critical Gap, Tc (Tab. 10-2)	5.5 sec.	5.5 sec.
Potential Capacity, Cp	Cp8 = 379 pcph	Cp11= 369 pcph
Percent Cp Utilized	18%	13%
Impedance Factor, P	P8 =0.87	P11 =0.91
Actual Capacity, Cm	Cm8 = 374 pcph	Cm11= 364 pcph
STEP 4: LT From Minor Street	<-- V7 = 0	-->V10 = 44
Conflicting Flows, Vc	Vc7 = 921 vph	Vc10=1174 vph
Critical Gap, Tc (Tab. 10-2)	6.0 sec.	6.0 sec.
Potential Capacity, Cp	Cp7 = 295 pcph	Cp10= 207 pcph
Actual Capacity, Cm	Cm7 = 264 pcph	Cm10= 114 pcph

Location: 8th & Clay St., Oakland

Date: 8/7/87 Time:E+G+P PM peak hour

Cm = Capacity of the movement
Csh = Shared lane capacity
Cr = Reserve Capacity
LoS = Level of Service

(Circle the appropriate lane combinations.)

Cr	LoS	Delay
)400	A	Little
300-399	B	Short
200-299	C	Average
100-199	D	Long
0-99	E	Very long

MINOR STREET APPROACH MOVEMENTS 7, 8, 9

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
7	0	264		264		C
8	75	374		299		C
9	231	476		245		C
7+8+9	306		447		141	D
7+8	75		374		299	C
8+9	306		447		141	(D)

MINOR STREET APPROACH MOVEMENTS 10, 11, 12

Movement	V (pcph)	Cm (pcph)	Csh (pcph)	Cr=Cm-V (pcph)	Cr=Csh-V (pcph)	LoS
10	48	114		66		(E)
11	52	364		312		(B)
12	0	1219		1219		A
10+11+12	100		177		77	E
10+11	100		177		77	E
11+12	52		364		312	B

MAJOR STREET LEFT TURNS 1, 4

Movement	V (pcph)	Cm (pcph)	Cr=Cm-V (pcph)	LoS
1	31	1524	1493	(A)
4	0	707	707	A

COMMENTS:
V5 = 1 is a dummy volume to facilitate computations only.

G = 5% annual growth.
P = residential, commercial & garage to 1990.

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